ECONOMIC LIFE AND PROGRESS IN ANCIENT INDIA

BY

NARAYAN CHANDRA BANDYOPADHYAYA, M.A.

Lecturer, Calcutta University,

in the Departments of History, Indian Antiquity and Anthropology

Hare Press, Calcutta

1925

RAMA VARMA RESEARCH INSTITUTE
TRICHUR, COCHIN STATE.
8 NOV 1930

Calcutta Oriental Series. No. 13 E. 7

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BEING

The Outlines of an Economic History of Ancient India

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VOL. I.—HINDU PERIOD

PART I.—*From the Earliest Times to the Rise of the Maurya Empire*

Hare Press, Calcutta

1925

MOTI LAL BANARSI DASS,
PUNJAB SANSKRIT BOOK DEPOT,
Said Mitha Bazar, LAHORE.

Price Rs. 6/

PUBLISHED BY
R. N. SEAL, B.A.,
107, MECHUABAZAR STREET,
CALCUTTA

BY THE SAME AUTHOR

In the Press

I. Development of Hindu Polity and Political Theories.

II. Kauṭilya : His Social Ideal and Political Theories.

PRINTED BY
HARE PRESS :
46, BECHU CHATTERJEE STREET,
CALCUTTA

RAMA VARMA RESEARCH INSTITUTE
TRICHUR, COCHIN STATE.
8 NOV 1930

To

the Sacred and Beloved Memory

of

my Grandfather



PREFACE.

Since the year 1918, when I was appointed a Lecturer on Ancient Indian History and Culture, I have had to make a special study of Ancient Indian Economic History. The subject was a fascinating one, but a very great difficulty had to be faced as no one had attempted a systematic study of Indian economic life on scientific lines. Partly with a view to helping my students, and partly to make a systematic study of the subject, I had to work hard. As a result of these labours a synopsis was presented to the students, and the present work is an elaboration of the first few chapters of that synopsis.

In this volume, I have entered upon a preliminary discussion of the object and scope of Economic History and of the importance of the factors which influence the economic life of a people. I have further discussed the foundations of Indian economic life, the peculiarities of the situation of India, and its economic flora and fauna; Next, I have passed on to a study of the history of the races which came to be settled on the Indian soil. Elaborate discussion in regard to these has been avoided, since that will be out of place here. In regard to the periods, I have discarded more or less the old one, and have divided the economic history of India into periods, from a consideration of the economic forces and phenomena characterising them.

Next, I have discussed the main features of Indian economic life during each of these periods. In regard to the Vedic period I have rather gone into details, as I had to trace the evolution of economic life from the very

beginning. In all subsequent periods, only a general survey of economic life has been given with a view to showing the progress at each step, and the causes leading to them. With this object in view I have done my best to give a picture of economic conditions at the end of the Vedic period. In connection with the next period, I have traced the economic factors, and as a result dwelt upon the characteristics of economic life. The growth of guilds, town life, and foreign trade have been fully discussed, as also the forces and factors which brought in the interfering policy of the Maurya Government. In the next period, the effects of the opening up of direct foreign trade with the western markets has been fully discussed, and towards the close, the causes that led to the decay of Indian political life and the economic decline of India owing to foreign invasions, especially the Musalman conquest.

The present work forms the first volume of the Economic History of India, and the second volume, which will follow, will deal with the next two periods of Hindu India, the manuscript of which is already completed. Moreover, I have taken upon myself the preparation of two complementary volumes dealing with the economic life of India during the Muhammadan occupation and under British rule.

In preparing this work, I have received great assistance from the works of many scholars, whose labours have considerably lessened my task. In regard to the Vedic period, the two volumes of the Vedic Index by Messrs. Macdonell and Keith were of great service to me, as furnishing a storehouse of information, so far as the Vedic period was concerned. In regard to the next period, two articles of Mrs. Rhys Davids on the Economic Condition of India, were of great assistance to me. On the subject of Indian village communities and land-tenure, I have received great help from the well-known work of Baden Powell, while in

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connection with Indian Numismatics, the first part of the *Numismata Orientalia* and the second series of Carmichael Lectures have been of some help to me.

I have, moreover, received help from my friend Mr. R. M. Choudhury, my colleague in the post-graduate teaching staff, in the Department of Economics. He gave me many valuable suggestions, and went through some portions of the manuscript. Mr. S. N. Mitra of the Pali and Vernacular Departments gave me his invaluable assistance by going through some of the proofs and revising them. Mr. S. Kumar of the Imperial Library also did me great assistance by his suggestions.

Further, I am in duty bound to acknowledge my indebtedness to Kumar Dr. N. N. Law, M.A., B.L., P.R.S., Ph.D., himself a scholar of great renown, without whose help the publication of this work could not have been attempted. During one of the saddest periods of my life, it was his encouragement which enabled me to persevere in this work. His kindness did not end there, and his noble-minded munificence has given this humble work a place in his Oriental Series. My best thanks as well as those of all interested in the subject are due to Dr. Law for the publication of this humble work of mine.

Lastly, I owe an apology to the reading public. Some typographical errors have crept in, especially with regard to the diacritical marks. The condition of printing in this country is not of a high level of excellence, and the resources of our printing houses are not very great. I have, however, appended a table of errata which, I hope, will to some extent, remove inconvenience to the reader.

NARAYAN CHANDRA BANERJEE.

Calcutta, April 1, 1925.

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The Jatakas	...	Ed. by Fausböll.
Do.	...	Eng. Trans. by Cowell.
Do.	...	Beng. Trans. by Rai Sahib Ishan Chandra Ghose.
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The Pati-Mokkha		
The Theri-Gatha	...	Trans. Mrs. Rhys Davids.
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The Mahabharata including The Harivaṃśa	}	Bengal Edition.
The Ramayaṇa	...	„
The Manu Samhitā	...	Jolly's Edition.
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BOOK I

INTRODUCTORY

Foundations of Economic Life and Evolution of Indian Culture

ECONOMIC LIFE AND PROGRESS
IN
ANCIENT INDIA

CHAPTER I.

I.

ECONOMIC HISTORY: ITS SCOPE AND IMPORTANCE

The evolution of human culture is intimately connected with the material basis of existence, and man, ever since his creation, has waged an eternal struggle not only to free himself from the vagaries of nature but to provide for his own comfort by modifying the environment and utilising the forces of nature to his own account. All throughout this struggle, there remains an intimate relation between him and the surrounding nature which exerts the most powerful influence on the evolution of his life and thought. The material environment remains the basis of all his activity. He is intimately bound to the soil. The aspects of nature regulate the conditions of his existence and progress. His social life remains intimately connected with the economic factors of production and distribution of his necessaries. He remains, as it were, a conscious and self-asserting though insignificant element in the working of nature's great phenomena—too weak entirely to resist her influence, and practically dependent on her bounty. At no stage of progress can he free himself entirely from her influence.

Such, indeed, is the history of human civilization, and one who wishes to engage in the study of human

society, can hardly neglect man's relation to this material basis, so essential to his life and progress. An enquiry of this nature is important from the point of view of the historian, who enquires into the progress of the community in general—the evolution of its life and progress, as opposed to its internal arrangement, the working of its component parts, and the maintenance of internal order, which all come within the sphere of political history. Such a study discloses to him the real man, the man of wants and desires, and not the man of higher ideals or objectives. Anyone who fails to do this must necessarily blind himself to the existence of forces which play so prominent a part in the moulding of human society. The result of such a neglect will make him over estimate other forces, vitiate his judgment and lead to false generalisations.

The examination of these material factors of human society is reserved in particular for the economic historian who makes it the special subject of his study. It is for him to investigate the material aspect of the problem which faces the social man, and to note his efforts along with the results attained at each stage. Such a study of the various economic facts and phenomena will enable him to disclose the influence of forces otherwise unnoticed and to estimate their effects upon the social progress. So far as social evolution is concerned this economic interpretation will throw new light in explaining the past and serve as a guide for the future.

Herein lies the importance of economic history. Yet, strangely enough, in the past it hardly drew the attention of historians except incidentally. They used to confine their attention entirely to the political history of a nation, the vicissitudes of its ruling princes and statesmen, the strife of parties, the struggle of armed forces, success or failure of movements, but failed to take into

account the economic factors which contribute to man's progress or deterioration and which constitute an essential part of a nation's history in the true sense of the term. As Dr. Price observes : "Until a time not yet removed by any distance from the present day, it was thought no necessary portion of the duty of the general historian to devote substantial sections of his narrative to the economic interests and affairs of the people or the country whose advancing or declining fortunes he was studying and describing. Political changes and constitutional developments, the rise and fall of dynasties and statesmen, the vicissitudes of military and naval conflict filled the canvas and presented tempting opportunities for able draftsmanship or rich contrasted colouring." Such being the state of things the historian narrated everything but excepted from his attention the materials which directly furnished him with information on the struggles which centre round the real problems of humanity.

Of late, however, changes have come to pass, which in Europe and more recently in the East, have altered the conception of history and also the ideals of humanity. During the close of the 18th century the cry of political reform put into the background all strife about theology and religion. Everywhere the people asserted themselves and claimed political power, hitherto solely reserved to their despotic rulers. Nations burst the fetters of despotic authority and repudiated the claims of irresponsible legitimacy to rule at its will. Along with these, or perhaps earlier, came the industrial revolution, facilitated and made possible by a series of scientific discoveries and inventions which enabled man to utilise the forces of nature to his advantage.

Changed circumstances. Revived interest in Economic History in comparatively recent times.

The industrial revolution brought about fundamental

changes in the organisation and technique of industry. The introduction of machinery widened the scope of large-scale production and directly facilitated the growth of capitalism, which in its turn deprived for the time being a large number of men of the opportunity of earning their livelihood by means of manual labour. The man of labour passed into the grip of the capitalist and the struggle between capital and labour began.

The antagonism of interests diverted the attention of thinkers to the consideration of forces and factors hitherto neglected. Gradually, the strife for political equality lost its charm and "the era of politics passed into that of social reform" always aiming at the adjustment of the relative claims of the masses and of the classes in a favoured situation. All this led to a revival of interest in the consideration of economic factors in human life, and though there was a tendency to over estimate these forces, they at length received that amount of consideration which they deserve. This gave an impetus to the study of economic history which makes its special business the study of the various economic phenomena, and assigns them their proper place in human history "amid the throng of conflicting and co-operating causes to which historical effects are due."*

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* Economic history henceforth drew a number of scholars in Europe and in America, and every day the number of such scholars is increasing. We may mention here the names of some of those whose works have become almost classical. Prominent among them are Toynbee, Cunningham and Ashley in England, Wagner and Schmoller in Germany, Bogart and Oman in America, who all deserve the first place among the pioneers of this branch of study.

II.

METHOD OF ENQUIRY

In studying the economic life of a community in any age the first consideration with the historian is an examination of the environment in which it lives. In connection with this, he must take into account a number of physical factors which exert so great an influence upon the life of the community. These include the climate and geographical configuration, the nature of the soil, its productive capacity, its peculiar products, the conditions of food supply and such other considerations, to which may be referred the whole of the "external phenomena by which man is permanently affected."

A consideration of these not only enables us to see clearly the extent of that remarkable "influence which in an early stage of society the powers of nature exercise over the fortunes of man" but at the same time helps us in tracing the basic principles underlying the character and development of all societies.

Thus, no civilization can flourish unless the forces of nature are favourable to man and help him in producing his necessaries of life. Where natural obstacles are very great, man's efforts are blasted and the bitter struggle for existence kills the instinct of progress in him. No great civilization in antiquity flourished except in well-watered plains, or in regions naturally fertile or rich. On the contrary, when conditions are favourable to man he attains an early civilization. The valleys of the Nile, the Euphrates, the Indus, the Ganges and the Yangtse became centres of an early civilization, since, there, man was

put in circumstances which enabled him easily to attain the necessaries of his life. On the contrary, the bleak desert regions, or those under the scorching sun, or the realms of eternal snow have remained devoid of culture.

Man also is influenced by the climate and configuration of his habitat. His food supply, which depends on the climate and soil, influences him directly and regulates his efforts. Moreover, climate influences his capacity for labour. The rigours of the Arctic zone as well as that of the tropics, are both detrimental to his progress. In the one case the moist heat and the lavish bounty of nature take away man's habit of industry and kill the desire for further progress as in the case with the tropical regions of Africa ; in the other, the extreme cold of the arctic regions similarly affects him. Climate and meteorological phenomena influence at the same time agriculture and industry. They determine harvests and exert an influence on man's temperament and his habits.

Economic conditions, moreover, are influenced by the geological formation of the soil, and the mineral wealth hidden underneath the surface. Thus, in sandy deserts as well as in swampy regions man remains for ever a nomad or a semi-nomad, moving from oasis to oasis or from place to place in search of good pasturage for his flock. In fertile soils, the progress of agriculture is rapid, and fosters a settled life ; other industries, too, grow very rapidly ; while mineral wealth enables communities to attain an early prosperity and furthers the growth of commerce. In primitive times, civilization was bound up with the wealth of communities in copper or iron. The abundance of these metals contributed to their fighting and conquering capacity and the early growth of industry. In our own days, the influence of metals is far greater. The character or the flora and fauna, too, materially influences

civilization. In some cases, they go to influence the social life or the character of development. Lastly, a nation's proximity to the sea contributes to its maritime and trading activity.

Outside forces—contact.

The normal influence of these factors, moreover, is liable to variation, owing to changes in them or through the action of outside influences. A variation of these physical factors modifies the social life. Outside influences, too, act as modifying agents. A nation may come into contact with a different type of civilization or social organisation and the influence of such a contact is very great. Such contacts may take place with the migration of communities, the intercourse of one with another through trade or through war. In any case, the changes brought about are often remarkable and history abounds in instances where the contact of one nation with another, either through war or peace, brought in new factors in economic life by introducing new commodities, industries or industrial ideals.

III.

ENQUIRY AS REGARDS INDIA

Economic History of India.

In order to make a systematic study of economic development in India in the earliest part of her history, we must first of all study the physical factors which influenced the growth of Indian culture. With this end in view, we must study the peculiarities of her situation, the physical character of her landscape and soil, and her climate. We shall pass on next to a consideration of her natural resources, e.g., her natural mineral wealth, flora and fauna, the productive capacity and the character of her soil, and then trace the advent of the race or races, with whom the history of her civilization is so closely associated.

In connection with this human element we shall enquire in detail as to the state of culture attained by the race or races of whom we have definite records at the very outset, and the nature and influence of any outside force.

After a consideration of these, we shall attempt to find out suitable landmarks which may help us in determining the important periods in the history of economic development, and in this connection we shall take chronology into account. A neglect of chronology will be altogether unscientific. It will put obstacles in the way of discriminating the successive phases of development and will introduce confusion in tracing the relation between cause and effect.

We shall next, study the chief features of the economic life of the earliest period. In order to do that, we shall have to enquire into the general social condition of the community, the relation subsisting between its various sections, their mode of life and occupations, the state of arts and crafts, the exchange of commodities and the medium employed therein.

Then we shall pass on to subsequent periods noting the chief economic forces and phenomena and also the nature of any change or improvement which might have taken place with regard to the economic life, or other factors associated with these. In course of this we shall proceed to a consideration of the chief points of study as enumerated above.

The plan thus followed in this work will comprise a systematic and detailed enquiry into the economic condition of India during successive ages and this will include an enquiry into the following heads, with the special purpose of elucidating their importance and bearing on the life of the community.

(1) A systematic study of the village—its arrangement, its socio-economic organisation, land tenure, with a detailed discussion as to the ownership of the various classes of land. In connection with this we shall discuss the nature and origin of the village community which has a special Indian interest in it.

(2) Agriculture—including a description of agricultural methods and operations e. g. ploughing—water supply—cultivated plants—agricultural labour—royal share of the produce, and such other topics bearing thereon.

(3) The Chief industries, e. g. weaving—smelting and working in metals—carpentry—and other minor crafts ; The influence of the growth of industry upon the life of the community ; separation of the industrial element from the agricultural ; movement of population from villages—to industrial centres—to towns ; the growth of town life. In connection with industry, industrial organisation, labour and the part of capital in industry will also be discussed.

(4) The various occupations of the people—the evolution of caste on the basis of the division of labour.

(5) The state of commerce,—internal and foreign—causes and circumstances fostering it—exchange of commodities, barter—mediums of exchange and metallic currency—money transactions and such other things as are closely connected therewith.

As we proceed we shall discuss the same topic following practically the same arrangement and order for all periods and shall thus be in a position to note the changes introduced during each. Such a procedure will help us not only in following progress in successive stages, but also in tracing from the point of view of comparative study, the relation of cause and effect at each step.

IV

PAUCITY OF LITERATURE AND DIFFICULTIES IN RECONSTRUCTING INDIAN ECONOMIC HISTORY.

A systematic Economic history of India during the early part of her cultural development has not yet been attempted. Some scholars have indeed given us fragmentary accounts of particular periods or have dealt with various topics bearing upon her economic life in the past.

The difficulties of reconstruction are very great. First of all we have to examine the condition of an age far removed from us. There is not only want of chronology prior to the establishment of intercourse with foreign nations, but a lack of material directly bearing upon economic life and conditions. In India we are to deal with a people who neglected to keep a systematic account of their political or social activities to speak the least of the economic life. This latter circumstance makes us often entirely depend upon literary records of doubtful historical value of which we hardly know the exact date of composition, and which contain evidences of superposition of different strata of social condition and thought.

As to the want of chronology prior to foreign intercourse we need not dwell at large, since it is admitted by most of the historians who are engaged in the study of Indian antiquities. But as to the lack of first-hand materials, it is indeed deplorable, when we find conclusive evidences to prove their existence in the past. The ancient Hindus distinguished as they were by a peculiar turn which made their social system assume a spiritual aspect, hardly neglected

to take proper care for the advancement of the material aspects of life.

Lack of literature on Economics.

As early as the immediate post-vedic period, we find the growth of a literature, forming in itself, a subsidiary study to the Vedas and comprising several branches known as the Upavedas. According (a) to the evidence of the Caraṇavyūha (49th Parishista of the Atharva Veda,) Artha-śāstrā was the Upaveda of the Ṛgveda. This is also confirmed by the evidence of the Caraṇavyūha ascribed to Śaunaka. (b) The Arthaveda (as the name of this Upaveda was) was solely devoted to the discussion of means of acquisition of wealth and thus included *vārttā* and other allied branches a of study. (c) A late writer—the author of the "Sarva Siddhānta Saṃgraha" (ascribed to the great Śaṅkarāchārya has defined Artha-Veda as "solely devoted to the study of that happiness which is consequent upon the proper distribution of food, drink and such other things among the people"..... and "which thus brings in the fruition of those aims of life which make up the well known *caturvarga*" *e. g. dharma, artha, kāma and mokṣa.*

(a) tatra Ṛg-vedasyārthaśāstram-upavedaḥ xlix, 3.

(b) Vedānām-upavedāścattāraḥ..... Atharva-vedasya Arthaśāstram.

(c) For tradition as to the rise of the upavedas See Viṣnupurāṇam, Part III. Ch. VI. 29.—Āyurvedo dhanurvedo gāndharvaśca te trayaḥ, / Arthaśāstram caturthantu vidhyā hyaṣtādaśiva tāḥa. //

The same tradition finds place in the commentary of the Yāgñavalkya Saṃhitā. e. g. Āyurvedo dhanurvedo, gāndharva-vedo'rtha Śāstramiti cattāra upavedāh.

4. Arthavedonnapānādi-pradānamukhatatparaḥ ..... Tat-pālanāccaturvargapurusārthaprasādhakah.

Sarva Siddhānta Saṅgraḥ 13-14 Chap. I.

The study of the Arthaveda gave rise to systematic treatises dealing with practical politics and the ways of acquiring wealth—which came to be known as Arthaśāstras. These Arthaśāstras were many in number, though only one perhaps the last to be composed—that of Kauṭilya—has come down to us.

Apart from these there were exclusive treatises on agriculture, cattle-rearing and on the ways of conducting business and trade. All these fell within the scope of Vārttā,[1] the importance of which has been emphasised in more than one place in the Mahābhārata, and in all later works like the Smṛties, and the Nīti works.[2] Kauṭilya too quotes his predecessors, and all authorities agree with him in holding Vārttā to be one of the chief branches of study.[3] All this presupposes an extensive literature on Vārttā and Arthanīti. In the days of the great Kauṭilya himself a class of teachers known as Adhyakṣas taught Vārttā to students and some of these were granted help from the State. (Vārttāmadhyakṣebhyah.....Ar sā. P, 10)

Again, there is reason to believe that separate treatises were composed on the various branches of this important subject of Vārttā. No such work has reached us but we find the names of some in the commentaries of later works. Thus Śankarārya the commentator of the Kāmandaka Nītisāra mentions a treatise

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1. Kṛṣi-pāśupālye vaṇijyā ca vārttā. Ar sā. p. 8.

2. See M. V. Santi Parva. Ch. LXVIII. sl 35 Vārttāmūlohyam loka etc ; also Kāmandaka Ch. III 14 —Vārttā tu jīvanam

3. Ānvīkṣikī trayī vārttā Daṇḍa-nītiśceti vidyāh. Kauṭ. Ar. Sā. ch. I. BK. 1.—see also passeges quoted by Kauṭilya to support the view that vārttā was one of the principal branches of study

on cattle-rearing and cattle treatment by Gautama and Śālihotra (tacca Gautama Śālihotrapraṇītām). He mentions moreover a treatise on agriculture by Parāśara. (Kṛhṣih-Parāśara-proktā-vījavāpa-parikarmādi-vidhānārthā) and another on trade composed by Videharāja (paṇyam..... krayavikrayasva-rūpam vāṇijyamiti jāvat—tacca videha-rāj-proktam). With the exception of a fragmentary treatise on agriculture ascribed to the sage Parāśara, these works so far as we know are lost.

Portions of their contents seem to be preserved in fragments in some of the Purāṇas or in later treatises which still exist in manuscript.. Thus the Agnipurāna contains chapters on townplanning, and housebuilding (104-6). The Matsyapurāṇa too contains, chapters on the same and other miscellaneous topics (Ch. 257-269). A large number of works of the latter class exist in manuscript and Dr. N. N. Lāhā has prepared a list of these after carefully going through the catalogues of manuscripts made by Aufrecht and other scholars. *

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* Dr. N. N. Laha (in his article on Vārttā—The Ancient Hindu Economics (Indian Antiquary XLVII P 253 1918) collected a list of printed books and Manuscripts, dealing with the subject matter of Economics. Among these we find a large number of treatises on architecture, on the construction of idols and images, on gems and precious stones, Several deal with the subject of metals and me tallurgy, some with trade, some with cattle rearing and a large number with Silpa.

As to works on architecture some of them are yet unpublished and include works like Manusyālaya Cāndrikā Maya-Śilpa, Maya-mata, Visvakarmīya-śilpaṃ etc.

The books on idols and images are numerous. Similarly many deal with gems and precious stones and it is needless to mention their names. Several of them are very old,

The sources of information as regards the economic condition in Ancient India may be classified into :-

(a) Indian,

(b) Foreign.

(a) The Indian sources include

(1) contemporary or non-contemporary religious, historical, semi-historical, legal and allied literary works from whieh we know some thing of the social and economic life of the people. Thus we have a good picture of Vedic society from the Vedas and the Brāhmaṇas and some of the Sutras attached to them. From the Epics, the Purāṇas and the Jātakas too we get much information as to the social and economic condition of ancient India. But most of these literary works are non-contemporary sources of evidence since

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as is proved by their being referred to by Hemādri and other old authors. All these however do not furnish us with materials directly bearing on the subject of economic life but it may be of some interest to mention the works on metals by name (eg N. 86-88 in the list) e. g the Loha-ratnākara the Lohārnava, Loha-śāstra. Another of these treatises the Nāva-Sāstra throws some light on Shipbuilding and Navigation but the work is fragmentary. On agriculture we have some works in Telegu (Ratta-Mattam) and these contain some observations on the meteorological influences on agriculture.

One treatise the Mānavala Narayana Śatakam, is a work on the conduct of merchants. Very recently the Travancore Government have published several works on Śilpa and architecture and these include the Śilparatna Maya-mata and sevral others.

most of them describe a condition of society different from that of the period of their composition. This non-contemporary charcter of these works however does not take away the value of the evidence furnished by them, though we are to proceed cautiously and examine thoroughly the evidence in respect of the time and period to which it refers. This is pre-eminently the cases with the great Epic the Mahābhārata which took centuries to be reduced to its present from, and the Purāṇas which along with a mass of later interpolations, fabrications and alterations preserve some very old and and genuine traditions; similar is the case with that mass of popular folklore, later on transformed into the Jātakas or the Birth-stories of the great Buddha, written in the Pali vernacular of the day and supposed to have been reduced to their present from in the fifth century A. D. A critical examination of these stories which furnish us with ample reliable material for the construction of a history of the social and economic life of ancient India shows that whatever be the date of their redaction to their present form they preserve a good deal of that very remote period in which they originated and in spite of the modifications and alteration wnich the traditional stories underwent at the hands of the Buddhists during centuries and which can

be traced, they have not materially altered. The Artha-śāstra and the later legal works are sources of information for the period in which they were composed.

(2) In the archæological records we have another great source of information. These include inscriptions of ancient kings and private individuals, and of guilds, ancient coins and monuments. As a rule these are most trust-worthy to the historian in as much as they furnish him with definite information as to a particular period which is clearly known.

(b) Our foreign sources include:-

(1) the evidence of foreign literature containing descriptions of India. From the days of Homer downwards we have accounts of India in the Greek, Hebrew, and Latin literatures. either fragmentary or in detail. These though often fanciful, contain many useful informations. Even when such account sare lacking, the silence of history is broken by the testimony of words. The names of Indian commodities and products occur in the Greek, the Latin, the Hebrew and other ancient literatures, and the philological evidence of these words come to our help. Thus the word Sintu in Assyrian meaning cotton goods point according to Lassen to its Indian orgin. The words Elephant and Kassiteros occur in Homer's poems. Kassiteros means tin and is an exact echo of Sanskrit Kastira.

Karpas * in Hebrew, and Karpasos in Greek and carbasus in Latin bearing close resemblance to Sanskrit word kārpāsa and having the same meaning were borrowed by these nations from the Indians with whom they had commercial intercourse. †

(2) We have moreover accounts of foreign travellers about India from the 3rd century B. C. to a comparatively recent-age. Thus as intercourse ripened the accounts of Greek travellers and historians multiplied, and many of these like the fragments of Megasthenes, or of his successors supply us with details not to be found elsewhere. Even now they are a store of information for us.

Next to them, Chinese and Moslem travellers visited India. between the 4th to the 10th century A. D. The accounts of Fa-hian, Hiuen-tsang and of Al-beruni throw a flood of light on the social and economic condition of contemporary India.

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* O. T. Est. 1. 6.

† See also Weber. Ind. Ant II 1873. pp. 143-150.

V

ON THE DATE OF CERTAIN WORKS AND THEIR EVIDENCE.

Before entering into a consideration of the economic condition of India something has to be said as to the date of the works mentioned above and the nature of the evidence furnished by them.

Our earliest information is supplied by those ancient hymns which have been compiled into the various Vedic Samhitās, in accordance with their character and importance and with reference to the various aspects of sacrificial performance. Of these the Ṛg-Veda contains by far the largest number of hymns written in verse for the use of the hotṛ priests, while the Sāma-Samhitā comprises hymns which with the exception of about seventyfive, are mostly the same as in the Ṛg-Veda, distinguished only by their archaic language and adaptability for singing by the udgātṛr priests. The Yajur-veda on the other hand contains in addition to hymns, sacrificial directions, and explanations which serve as hints to the adhyarju priests. Lastly comes the Atharvan (Samhitā) collections, which comprise in addition to hymns, found in the Ṛg-Veda and Yajur-veda new materials, compiled together for the use of the brahma priests.

A careful analysis of the material contained in the various Samhitās convinces us of the utter lack of homogenity in regard to their composition and date. Each of the Samhitās seems to contain several strata of compositions belonging to different periods and different families of composers. The internal evidence of all the Vedas goes to prove the same. In the case of the Ṛg-Veda,

we have express references to the older hymns and of the older schools of composers by the ṛṣis themselves. * We have at present no means of classifying the hymns, according to their date of composition, but it is shown by the language of the various sections of the hymns of the Ṛg-Veda. What is true of the Ṛg-Veda is true of the other Samhitās. The Yajur-Veda too contains both older and newer materials, the former being as old or perhaps earlier in some cases than the mass of the Ṛg-Veda hymns. Even the Atharva-Veda which has been supposed to be the latest production of the ṛshis contains hymns rivalling in antiquity some of the oldest Ṛg hymns.

Another point to be borne in mind is that the ḥymns of the Ṛg-Veda do not represent the earliest composition of the Vedic Indo-aryans. A superficial examination of the question may lend support to a contrary view since the Ṛg-Veda seems to have supplied many hymns to the other vedas e. g. the Yajus and the Atharva, not to speak of the Sāma which is almost entirely indebted to it.

Among European scholars the late Dr. Martin Haug was the first to raise this point, and in his introduction to his Aitareya Brāhmaṇa, he asked whether, "the finished and polished hymns of the Ṛg-Veda with their artificial metres were the most ancient relics of the

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* Thus in the very first hymn of the 1st Maṇḍala of the Ṛg-Veda Madhucchandas speaks of Agni being worshipped by the older rishis—as well as the new generation of composers to which he—Madhucchandas belongs. (Agniḥ pūrveviḥ ṛṣivīrīdhyo nūtanairuta R. V. I. 1. 1.) In another place Kaśyapa another ṛṣi of the older generation speaks of the worship of Soma with the stotras composed by still older sages (Ṛṣe mantrakṛtām stotraiḥ kāsyapodvarayan giraḥ)

whole religious literature of the Brāhmaṇas". In the course of a discussion of the above question, he showed the high polish of the Ṛg-Vedic Hymns which no primitive people could use in their rudimentary ritual of a less developed age. After that he compared the Ṛg-Vedic hymns with the Nivids and Nigadas contained in the Yajus, which appeared to him to be the older sacrificial formulæ preceding the composition of the Ṛcas. The former were proved to be advanced and well developed, not only in point of language but also in thought. These Nivids and the Nigads in his opinion were the oldest possible Vedic composition that have come down to us.*

Haug's views seem to receive confirmation when we examine the Ṛg-Vedic composition from the point of view of social and economic development. The Ṛg-veda, (as will

*The antiquity of the Nivids is proved by constant references to them in the Ṛg-Vedic hymns, where they are repeatedly described as belonging to an older period. Thus in R.-V. 1. 89. 3 Gotama Rāhugaṇa speaks of the worship of Bhaga, Aditi, Mitra etc. with these old Nivids. (Tān pūrvayā nividā hūmahe vayam Bhagam Mitram Aditim dakṣam asridham). In 1. 96. 2 Kutsa speaks of the Nivids in the same strain (sa purvayā nividā kavyatāyorimah prajāh ajanayan manūnām). Again in the second Maṇdala Gṛtsamada makes the same reverential reference to the old Nivids. (Juṣethām yagnām vodhatam havasya me satto hotā Nividaḥ purvyā anu II. 36. 6.).

In addition to the Nivids we hear of another kind of composition the Āhābas which are referred to in the Aitareya Brāhmaṇa (II. 33). but we know nothing of these, nor do they exist either in entirety or in fragments.

A detailed discussion of the importance and the antiquity of the Nivids will surely be out of place here.

be shown in subsequent chapters) as well as the other samhitās, do not depict, a primitive, society. The evidence of these works reveal to us a "ready-made civilization "suddenly springing to our view, complete in in all the details of cultural development as may be be expected from a society removed from that of ours, by at least four thousand years. This makes us lean towards the presupposition of several stages of advancement, as far as the Vedic Aryans are concerned.

As to the date of composition of the Vedic hymns, it is very difficult to determine it accurately, since they furnish no safe chronological data; consequently we depend entirely on the evidence of language or mythology and we find a difference of opinion among different sets of scholars. Some of these try to prove the comparative modernity of the Vedic age. Here some of their views may be quoted. Thus according to Oldenberg, the Vedic Indians lived at the time of the composition of the Vedas, which formed the earliest sources of their history, by the Indus and in the Punjab, some time about 1500 to 1000 B, C. ("die Religion des Veda" p. i.) Next to oldenberg we have the views of Macdonell summed up in his preface to the Vedic Index (p. viii). He thinks that the upper limit of the age of the Vedas and of the Brāhmaṇas i. e. that of the composition of the oldest Vedic Hymn, is not much earlier than 1200 B C.

Date of the Vedic hymns

There are on the other hand some eminent scholars, who are convinced of the higher antiquity of the Vedic hymns. Prominent among these may be mentioned the names of Haug, Jacobi and Winternitz. Haug's views on Vedic chronology are to be found in his introduction to the Aitareya Brāhmaṇa where he sums up as follows (P. 47-48 Vol. I).

"We do not hesitate therefore to assign the composition of the bulk of of the Brāhmaṇas to the years 1400-1200 B. C.; for the Samhitās we require a period of *at least* 500-600 years with an interval of 200 years at least between the end of the proper Brāhmaṇa period. Thus we obtain for the bulk of the Saṃhitās the space from 1400-2000; the oldest hymns and sacrificial formulas may be a few hundred years more ancient still, so that, we would fix the very commencement of the Vedic literature between 2400-2000 B. C."

Jacobi who based his calculation on astronomical data as well as the Mittani tablets is disposed to assign a date, betwen 3000 and 2000 B. C., to the origin of Vedic civilisation. According to Winternitz the Vedic period may be taken to extend from the earliest times (cir. 2500 B. C.) to 800 B. C. the upper limit having been reckoned by him to be not later than 2500 B. C. The views of Haug thus very nearly coincide with that of Jacobi and Winternitz.

On account of this absence of proper data, the reconstruction of Vedic chronology will ever present a difficult task to the scholars interested in this subject. A detailed discussion of the same would be indeed out of place in a treatise which is professedly an enquiry into the economic aspect of the Indian society. For the present, only this much may be said that the estimates of Jacobi, Haug and Winternitz, may be accepted as a workable hypothesis.

As to the lower limit, we may roughly take the 10th century B. C. to be the landmark separating the Vedic period proper from the one succeeding it. By that date the Vedic tongue had ceased to be the spoken dialect of the people. The Vedic religion too was fast dying a natural dealth, in view of the cumbrousness of its ceremonies, and the fast

and steady rise of philosophical speculation which we find embodied in the Upanishads and Aranyakas. The society too was changing its character.

Next to the Vedic Samhitās, the Brāhmaṇas and the Āraṇyakas come in importance. These works as a whole, go to show a stage of social development, which must have been the outcome and expression of various forces, acting upon the community. We find traces of the working of these forces in the Samhitās. Their evidence bears testimony to the expansion of the Aryans towards the east and the south, and their establishment of contract with the races dwelling therein. We get glimpses of a change in the social structure, as also in the prevailing political ideals and institutions.

The compilation of these works, may be referred to a period, ranging from the time of composition of some of the hymns of the Rigveda, to a period not later than the 10th century B. C. Taken as a whole they may be regarded as post vedic, though they seem to contain occasionally very older materials.

Sutras and upanishads

After the Brāhmaṇas, we must take into account the Sūtras and the Upaniṣads. Of the former the Śrauta Sūtras may be generally taken to be pre-Buddhistic, and the date of compilation may be taken to range between the eighth to the fifth century B. C. The majority of the Grihya Sūras were compiled not later than the fifth century B. C. In spite of this rather late composition, they contain traditions and informations of the Brahmaṇa Period, and seem to have existed long in the memories of men—the rules being often altered and modified with the social changes and reactions.

The Dharma Sūtras as a class may be regarded as being composed before the fourth century B.C. though the text we now have may contain some later additions.

The social condition, the extent of Madhyadeśa, as defined therein and the simple state of political organisation, which we find in them, all point to the same conclusion; and we may safely infer that they give us the picture of a society anterior to the time of the Arthaśāstra of Kauṭilya which we take to be a product of the 4th century B. C.

The Dharma Sutras

As to the Sūtras of Pāṇini there are two different dates assigned to them. The first was suggested by Goldstücker, *viz.* the seventh century B. C. While according to some other scholars they have been placed in the fifth century B. C. The bulk of the Sūtras according to the evidence they furnish, appear to have been pre-buddhistic and may be referred to a period anterior to the rise of Jainism and Buddhism, though they may contain some references to the older philosophical school of the Ājīvikas, first propounded and elaborated by Gosāla.

Panini

The objection of those who try to prove the comparative modernity of the Sūtras by pointing to the occurrence of "Yavanas", may be met, by identifying the Yavanas not with the Greeks, after Alexander, but with other western nations, with whom the Indians came into close touch, in the 7th and 8th centuries, or even earlier.

The Pali works

As to the Pali Books the composition of the Tripiṭaka in their present form, ranges from the fifth century B. C. to the second century B. C., although we may hold it with Prof. Rhys Davids that the Canon, with its Piṭaka and Nikāya divisions, was well known in the time of king Aśoka. The major portion of the first four Nikāyas and the bulk of the Pāti-mokkha rules, and certain books of the Vinaya and the Khuddaka Nikāyas, may be regarded as the earliest portion of the Buddhist canon and belong to the fifth

century B. C. if not earlier. The Vinaya Texts with the single exception of the Parivāra-pāṭha taken as a whole may be assigned to a period somewhat anterior to Aśoka. The Niddesas, which are the canonical commentaries on the Aṭṭhaka and the Pārāyana Vaggas (of the Sutta Nipāta), perhaps the oldest materials of the Buddhist canon, may be regarded as being contemporaneous to the time of Aśoka. The Thera and Theri Gāthās in their present form probably belong to the same period. The Jātakas, or as we now have them, the Jātaka—aṭṭhakathā of Fausböll, have assumed their present form after successive redactions. Most of the stories are undoubtedly old, older than Buddhism itself.. But they underwent modifications at the hands of the monks, and this process continued up till the days of Aśoka and the present redaction was compiled in the 5th cen. A. D. Inspite of this, however, they give us according to Bühler, a picture of Indian society of a period earlier than the third or fourth century B. C. But in accepting the Jātaka evidence we must proceed cautiously and distinguish between the older materials and later additions and modifications without which we are sure to be misguided in respect of the period to which they may be taken to refer to. The presence of modifications and of later elements in the Jātakas has been detected even by Prof. Rhys Davids. According to him "the whole of the longer stories in the 6th volume are later both in language and in view of the social condition of India they depict, than those in the earlier volumes" (Bud. India, p. 205). The corroborative evidence, however, of the Jātakas is very great and on this we may safely rely.

Next to these we must mention the Arthaśastra of Kauṭilya ascribed to the prime minister of Chandragupta

the first Maurya Emperor of India. The majority of competent scholars leans towards the acceptance of the traditional view and agrees in referring the Arthaśāstra to the 4th cen. B. C. Recently, however, some critics have raised serious objections to the tacit acceptance of that date, and one of them, Dr. Hillebrandt pointed to the use of the name Kauṭilya in the 3rd person in connection with certain controversial points and on its basis tried to prove that the book was not written by Kauṭilya himself but by some of his disciples. These arguments were ably met by Professor Oldenberg. More recently Dr. Winternitz has also advanced arguments in support of the contention that the Arthaśāstra is a work of the third cen. A. D.

Arthasastra

Without entering into a consideration of the points raised by the parties in the controversy as to the date of the Arthaśāstra, it may be pointed out that there is hardly any room for doubting Kauṭilya's authorship of the book. The mention of the author's name in the 3rd person is a peculiar Indian practice which we find not only among classical writers but even among later writers and vernacular poets. The work, moreover, contains clear references to Kauṭilya's authorship in four places.

Statements to that effect occur in the beginning and in the end. Thus in the first chapter we are told that the Arthaśāstra was compiled by Kauṭilya after consulting various works.

Thus says Kauṭilya:—"Kauṭilyena kṛtam śāstram vimuktagrantha-vistaram". Again at the end of the chapter on Śāsanādikāra occurs the following passage:—"Sarvaśāstrāṇyanukramya prayogamupalabhya ca / Kauṭilyena narendrârthe śāsanasya vidhiḥ kritaḥ / "Furthermore, at the conclusion of the work we find the verses:—"Yena śāstram ca

śastram ca Nandarājagatā ca bhuḥ / Amarṣenoddhṛtānyāśu tena śāstramidam kritam / Dṛṣṭvā vipratipattimhi śāstresu bahudhā bhāṣyakārānām / Svayameva Viṣṇuguptaścakāra sūtram ca bhāṣyam ca /"

Apart from these references to the authorship of Kauṭilya the style and language of the book, all go to confirm its great antiquity, and we have no reason for rejecting the tradition which connects Kautilya with Chandragupta and places him in the 4th cent. B. C. Moreover, when we consider the picture of social and political conditions furnished by the work, we are sure to come to the conclusion that the work was produced in an age which had seen the rise of Buddhism but as yet that religion had not assumed that importance and universal character which the patronage of Aśoka Maurya enabled it to do. The picture of social conditions are those which may be put down as belonging to a period immediately subsequent to the one described in the Jātaka stories. The picture of political conditions as also of the leading features of Indian Administration substantially tallies with the accounts of Greeks who visited the court of Chandragupta Maurya.

The Milinda-pañha gives us a picture of North Western India during the 2nd century B. C. just after the down-fall of the Mauryas (e. g. the time of Menander) though the present text may be somewhat later.

Milinda panha

Next to these, the metrical Dharmāśāstras are of great importance to us. Of these the Manusamhitā holds a pre-eminent place by virtue of its admittedly higher authority and its wider circulation all over India. The present samhitā bearing the name of Manu is ascribed to his pupil Bhṛgu and contains in addition to older materials later additions which bear the stamp of a con-

servative reaction against the teachings of the preceding age. The period of this reaction, seems on closer examination to synchronise with the Sunga-Kāṇva Brāhmanical revival and the samhitā as a whole may be referred to that period.

The Yāgñavalkya-samhitā, which seems to follow the Manusamhitā in many respects may be assigned to a somewhat later date e. g. the 2nd or 3rd cen. A. D. The Viṣṇu Smṛti too belongs approximately to the same period, while the fragments of Vrihaspati and Kātyāyana may be assigned to the 5th or the 6th cen. A. D, The Nārada Smṛti which shows a further advance in judicial procedure belongs to a still later date.

As to the Epics—the Rāmāyana and the Mahābhārata it is very difficult to find out even an approximate date as to their composition, and differences of opinion exist among scholars. As a matter of fact both these works contain materials hardly homogenious in point of their date or of authorship. The kernel of both seems to be very old, that of the Rāmāyana, going as far back as the 6th cen. B. C; while the Mahābhārata seems to have existed in an abridged from even before the days of Pāṇini. The present epic, which is more of the nature of an encyclopaedia of moral and historical wisdom contains undoubtedly later additions to a somewhat older compilation, the bulk of which existed practically the same, as they are, in the 3rd or 4th cen. B. C.

The Epic

Thus the political teachings of the Rājadharma Parvādhyāya often show a remarkable resemblance to the corresponding chapters of the Arthaśāstra. Many passages exist in common both in the Mahābhārata and the Arthaśāstra. The difficulty, however, lies in separting the older material from the later additions in as much as they are so hopelessly blended together. Everywhere

we find a superposition of different strata of political thought and often of social pictures of different ages.

In view of these difficulties, our main guiding principle ought to be one of close examination of each chapter, before we proceed to build our theories with the evidence furnished by it. Each separate chapter must stand on its own merit.

After all these, comes the Śukrantīti, a work composed in its present from on the eve of Mussalman intercourse with India, and furnishing us with remarkable evidences directly bearing on the economic and social life of the country. The present work Śukranītisāra seems to have been composed about the 9th cent A. D., if not later.

Lastly, we get some realy interesting materials from the Purāṇas, the Sanskrit dramas and poetical works and romances, which, though meagre, is of great service to us.

CHAPTER II

I

EARLY CIVILIZATION OF INDIA

India is one of those countries which have attained an early civilization. From a remote antiquity, the valleys of the Indus and the Ganges became the seat of a culture distinguished by its originality, and many sided development. Alike in the domain of intellectual advancement as also in the arts of material progress, this civilization proved its excellence at an early date.

Before the Kelts and the Teutons had passed to Central and Western Europe, before the Latins had laid the foundation of the seven-hilled city later on destined to be the mistress of the Western world, before the Hellenes had learned the arts of civilization, the culture of India had already a long history. Precise information as to the date of its origin is indeed lacking, but evidences seem to exist, which may carry it back to a remoter antiquity—long before the wisest monarch of the ancient world had laid the foundation of the divine Ark of Jehovah, before Assyria had risen into a power and her proud conquerors broke the power of nations and mocked at the pretensions of their gods. Before the Egyptians were carrying their arms across Syria, before the Kassites ruled in Babylon or the Mitannians were settled in North Syria,—perhaps to that age when nomadic Aryan tribes were fighting the sturdy Semites—or fierce unknown invaders were alternately spreading consternation in western Asia or settling down to found empires.

Her early civilization.

As we go on in search of the beginnings of Indian culture we are carried to a region of uncertainty and darkness, with no light to guide our steps or to illuminate the objects of vision. We lose ourselves in the dark labyrinth of hoary antiquity.

With the consideration of that period which falls within the domain of pre-history we are not concerned and our enquiry begins with the age in which records are available. To those interested in pre-history the monotony of their sojourn is occasionally relieved by the find of a few cairns or monoliths containing the relics of primitive man, or the implements with which he attempted to mitigate the hardship of his struggle with nature. These supply him with data to proceed with a scientific enquiry about the evolution of man in the past. But to the ordinary historian, they are of not so great interest as to the enquirer into the history of primitive man, since to the former they supply no basis for chronology or for detailed study of events or the doings of mankind.

When we return to the region of history proper we find the fame of Indian culture spreading far and wide. The adventurous sons of India penetrated into foreign lands. Her commodities passed to other lands. By this process contact with nations was established and the stories of her wealth became known to the outside world. She became the land of wonder and of plenty. Henceforth references to her are found in the literatures of the ancient world. The Hebrew Chronicler clearly refers to her shores when he speaks of the gold-producing Havilah (Gn. II.) or Ophir whence the sailors of Hiram and those from Tarshish (I. Kings X. 11. IX, 26-28) brought Solomon his gold, silver, ivory (shenhabbin); apes (Qof) and peacocks (tukim).

Later on, the Greeks came in contact with Indians, and Homer mentions some Indian commodities while Ktesias gives us a description of India, though in many places fabulous and fanciful. After him, we find India in the pages of Herodotus, the father of history, who more precisely mentions the Indian fighters in the Persian army.

With Alexander began the direct intercourse of Greece

with India and from one of the ambassadors of a—lieutenant of his we have detailed descriptions of India of which fragments are preserved in the works of later writers. About the same time, or perhaps earlier, began direct intercourse with China, the Indies, and other lands. Indian missionaries carried the teaching of Buddha to the outside world and India became for a long period the teacher of the ancient world. For centuries reverence was paid to her sages by students from all parts of the civilized world.

A few centuries afterwards decay set in, hordes of barbarians entered and ravaged her soil or settled down to rule the unhappy land. Yet her civilization was not destroyed nor her prosperity interrupted. The conqueror became the captive in turn and yielded to the charms of the prostrate enemy.

Something different however happened in the land from the 10th to the 12th century A.D., when, the tide of Saracenic conquest turned to the East and after repeated attempts broke the political power of the race which had long held sway in Hindusthan. With their establishment began a struggle for existence and for the regaining of national independence. This engaged the attention of the Indian and continued with varying fortunes on both sides till the period which saw the dawn of Modern History. This struggle however did not destroy the economic prosperity of India. She retained her position and held good her reputation for wealth and splendour. The story of her wealth passed to the other continents. Nations strove to open communication with the coveted land the stories of the wealth of which had reached their ears, and whence rich commodities had passed into their hands, through the exacting merchants of Western Asia.

After repeated attempts their efforts were crowned with success. The European came as traders and later on became the masters of this once coveted land.

III

STUDY OF ENVIRONMENT AND NATURAL WEALTH

The prosperity of India, was largely due to the influence of those physical factors to which we have referred in the introductory chapter and before we proceed to a study of economic conditions in India, a consideration of these with special reference to India must engage our attention.

Situation

In her geographical situation, India occupies a peculiarly advantageous position. She covers the middle-most position between the two southern peninsulas of the Asiatic Continent. The Northern half of this which may be called Continental India mainly lies to the north of the Tropic of Cancer while the peninsular region to the south of that line juts out into the Sea and stretches about 1000 miles southwards. The country as a whole lies between the latitudes 36°.N and 8°.S. and between 62° and 96° Longitudes. The extreme length from North to South is about 1800 miles, while the breadth, is approximately the same.

This situation was a great advantage to India and contributed to the development of her industry and civilization. Placed in the centre, her people could draw upon the natural resources of the rich archipelago of the East Indies, as well as from the coasts of the African continent. Her adventurous sons took advantage of this, and these two regions became covered with Indian colonies and settlements. Later on as her industry developed, India from her central position supplied, the markets of the west and of the Far east with her goods.

The natural boundaries of India are well defined.

She is separated from the Central Asian region by the Himalayan wall on the north, while offshoots of the same, separate her both in the North-West and in the North-East from the Asiatic Continent. On all other sides she is bounded by the Sea. She thus became practically secure from invasions, and though the gaps in the mountain wall admitted free passage to conquering races which succeeeded in establishing their supremacy over the coveted plains, the narrowness of the passage made it impossible for barbaric hordes to obliterate the settled civilizations of previous ages.

Thus well defined and separated from the Continent, India embraces an area of about 18,000,00 sq. miles, being practically equal to the whole of Europe with the exception of the old Russian Empire. Within this vast area are to be found diversities which are hardly met with elsewhere. The different regions vary in physical characteristics, in climate, in topography, in the character of soil, in their products and in various other respects. To the extreme north lies

Physical characteristics

the hilly region of the Himalayas, varying in altitude from 10,000, to 29,000 feet, from the level of the sea. From the snow capped hills of this region take rise, almost all the river systems of the plain to the South of it. The extreme northern region is a land of eternal snow, and the climate of the system of high lands remains cold, all the year round.

To the South of this region lies the great plain of Hindustan covering an area of roughly of 5,00,000 sq. miles, fertile and well watered by the river systems of the Indus, the Ganges and the Brahmaputra. In the elevation of the plain we find a sudden drop from that of the Hills. In the greater part of the plain the climate is more or less continental, the heat being very great in summer, while the winter is also very cold. The fertility of the soil is increased by an ample rainfall, which rises to a maximum in the

East. A portion to the South East of this plain is comparatively barren, while in the East the Gangetic Delta, is almost a muddy flat of little elevation, and cut up into small islands, by the various channels which bring the waters of the Ganges to the Sea.

To the South of this Gangetic plain lies the great plateau of the Deccan, surrounded by a system of hilly ridges on all sides. The northern boundary is formed by the Vindhya and Sātpura ranges, which along with the Mahadeo hills, the Maikal range, and the hills of Chota-nagpur continue the high belt separating it from the plains to the North. The plateau, which at present maintains on an average an elevation of 1500 to 3000 feet is bounded on the west by the western ghats, in the East by the Eastern ghats and on the South by the Nilgiri hills. The Western ghats maintain an average of 6000 feet, while the Eastern ghats are comparatively low. This platean is fringed on the south and east by a belt of fertile plain land, and this coastal belt forms a separate region by itself.

Geological account

The evolution of these physical characteristics was an event of the remote past—long anterior to the age of human records. In the absence of these the historian must turn to those engaged in the history of the formation of the world, namely, the geologists.

According to Geologists the present physical features of India are the results of a series of great revolutions which took place in the remote past, seperated from us by an interval which is beyond the conception of the ordinary historian who attempts to record the doings of man in the historical period. Geologists recognize within the area of present day—"two dissimilar areas unlike in Geological history and equally unlike in the physical features

which are the direct outcome of the geological part." They recognize first of all :—

(1) The peninsula, which "withstood all tendencies to earth-folding for as long as the palaeontographical records go back."

(2) The other area is represented by the regions to the north including even the Himalayan region which had underwent series of changes. We find repeated immersions beneath the ocean followed by upheavals of the land area.

The oldest of the physical features was perhaps the Aravalli range of which only the divested and degraded remnants have survived to our days (which formed a powerful mountain system which existed in Palæozoic times.) Moreover in the earliest period this mountain region was flanked by a part of the peninsula stretching from the Aravallis to the present coast. India was thus represented by the Central plateau and the northern fringe of the Aravalli mountains. To the north of the region was a vast shallow sea which covered the area of Afganistan, Rajputana and a large part of the present Himalayan region.

The oldest portion

In Tertiary times the *Gondowana beds* were formed, and after the Palaeozoic era and during the secondary stage of evolution, the rock area extended over Assam and the Eastern Himalayas, while Burma and the N. E. Himalayas still remained submerged.

At this time this nucleus of India formed part of a vast Continent with which the continent of Africa seems to have been joined together by a stretch of dry land. The evidence of plant and animal life of past ages, as also of their remains found in the two regions now separated by the ocean goes to confirm the above view. (Imp. Gazetteer, I, pp. 85-87). This was succeeded by revolutions in physical geography and as the result of these during the same Tertiary period

the gondwana continent was broken up and the same period saw the rise of the Himalayan mountain system. As a result of the series of volcanic cataclysms 200,000 sq. miles of the Indian continent was covered with lava and the present landscape of the Deccan was formed.

Towards the close of the period of volcanic activity, there commenced the great upheaval to the north, which resulted in the formation of the Himalayas, the mightiest mountain system. This took place in the Pliocene period. The collected alluvium of ages, the deterioration of rock and gravel on both sides filled up in course of time the shallow gap. Gradually the Indus system of rivers became distinct, and in historic times, the two great river systems of the Indus and the Ganges were separated and India attained roughly her present shape.*

This happened in comparatively recent, though prehistoric times. According to some geologists this was a gradual process, which completed itself with the close of the Pleistocene period. But it is very difficult to determine when the sea ceased to exist. Most probably it was long before the advent of the Vedic Aryans and their settlement in the plains of Hindustan. The evidence of the vedic hymns dispel any idea of an inland sea. Nowhere do they speak of an inland sea, nor do they contain any reference to a cataclysm, which might have raised the land and expelled the water. The whole region of advance was dry land, which came to be appropriated and was covered with the Aryan Settlements.

Within recent times no great changes have taken place, only certain rivers, especially the Indus, have changed their courses, the area at the mouth of the delta has received some accretions, owing to the deposit of silt,

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* This section is based on the Imperial Gazetteer, vol. 1 (pp. 50-87).

or here or there the coastal area has varied, either owing to the receding of the sea, or to the erosion of the coast.

The general slope of the plateau is from west to the east while the greatest elevation is in the southern angle where lies the high and elevated state of Mysore.

The coastal region attached to the plateau forms a distinct portion by itself. Its elevation is very small in comparison with the plateau.

River sy- tem

The Indian continent owes much to the great river systems, which supply it with water, add to the fertility of the soil and thus lessens the toil o the agriculturists.

In the Gangetic plain there are two distinct river systems. The one which is probably the older is that of the Indus which rises in the hills to the north of the Himalayan chain and after passing in a North Westerly direction for 800 miles turns southward ; it is then fed by the water of regions which vary in altitude from 10,000 to 18,000 feet. The main tributaries of the Indus are the Sutlej, the Beas, the Ravi, the Chenab, the Jhelum, while the Kabul river which joins it near Attock draws water from the regions beyond the frontier, whence come smaller affluents like the Kuram, with the Tochi and the Gomal. Later on it passes through the plain of the Punjab and falls into the Arabian Sea.

The hymns of the Ṛg-veda show a familiarity with the Indus river system. Not only is the Indus repeatedly mentioned, but the names of the tributaries figure prominently in connection with the advancing Aryans. Not only are the Sutudri, Aśikni, Paruśnī or Irāvatī, mentioned but we have repeated references to the Kubhā (Kabul) the Krumu (the Kurum) and the Gomatī (the Gomal).

Apart from this Indus system of rivers, we have two other systems, which though take their rise in the North

region, flows for a time in different directions and after a junction in Eastern Bengal fall in to the Bay of Bengal.

The Ganges which is formed in the hill region of Garwal, by the junction of the Alaknanda and Bhāgirathi passes in a south easterly direction. From the North it receives the waters of the Rāmganga, the Gumti, the Gogra, the Gundak and the Kusi. From the South it receives the water of the Jumna and the Son. After passing the Rajmahal hills the Ganges turns South East and its main course is diverted into two channels. One continues eastward and becomes the Pudda, after its separation from the Madhumati to the South of Pabna. The other passes directly South below and after receiving the waters of feeder rivers becomes the Hughly near Calcutta. Like the Indus the Ganges too is mentioned in the Rgveda repeatedly along with the Jumna. In the later samhitās, in the Brahmanic and post-brahmanic literature its sacred character is repeatedly inculcated upon.

The other great river of Eastern India is the Brahmaputra which takes its rise in the region of the Manassarovar and after passing in an easterly direction for 700 miles takes a South-westerly course through the Assam Valley and after various changes joins the Pudda ; and the united waters of the two pass into the Bay, through the Pudda and the Arial Khan.

In the Deccan and the Peninsula, two river systems are noticeable. The one comprising of the Narmadā and the Tapti falls into the Gulf of Cambay. The other system comprising of four almost parallel rivers all flow in an easterly direction. They are the Mahānadi, Godāvarī, Kṛṣnā, and the Kāverī.

For the greater part of its length the Indian coast is almost uniform and regular. There are few indentations, and consequently India is very poor in naturally protected

landlocked bays or harbours. Only a few of them exist on the Western Coast, while in the East the coast is practically devoid of safe anchorages.

The Indian Coast

At the present time we have only a few harbours of importance e.g. Karachi on the mouth of the Indus, Bombay, Goa and Karwar on the West Coast, Tuticorin in the South, Madras and Pondichery on the East coast, the river port of Calcutta in the Delta region and Chittagong in the East.

In ancient times however when the size of trading vessels was not so huge as in our days, a large number of fair-weather anchorages were available. Thus in the 5th Century B. C. we have distinct historical evidence which goes to prove that the ports of Broach and Surat (Bharu-kaccha—and Surāṣṭra or Suraṭṭha) were great centres of maritime activity. Later on we have accounts of the great importance of the ports of Suppara on the west and of Tāmralipta in Bengal which had by the 5th Century B. C. beome the port of departure for vessels going to Ceylon and the Archipelago. So also in the days of the Perilplus and of Ptolemy were Suppara (Suppāraka) and Calliena (Kalyan, a few miles to the north of Bombay harbour,) Melizigara and Byzantium (described as a fine harbour). Further south lay Muziris, Nelcynda, and Bacare (Porcad) and Colchi (korkai) in the Chera and Pāndya kingdoms. Even in the east coast lay a large number of Ports and safe-weather anchorages, whence the Pandyan and latter on the Chola maritime adventureres started to the islands of the indies either for conquest or for trade.

The mariners of ancient days moreover took advantage of the surface currents or drifts which even now affect the coasts of India. They utilised also the monsooner

winds, the importance of which has now been reduced to their rain-bearing agency. These surface currents which now run along the West coast from North to South. and vice versa, on the Eastern side, during the South-West monsoon, facilitate the coasting trade. During the North East monsoon the current was reversed. The mariner took advantage of both during the respective seasons for his outward journey and for his return home.

The great monsoon wind & coastal cnrrents

Next to these currents and drifts of the sea, the monsoon wind is of great service to the trader of ancient times. The South-western monsoon, helped the journey from the African coast or other countries to the West India. It also helped the mariners of India who engaged in trade with the Eastern Archipelago, while the North East monsoon facilitated a return journey. According to Pliny, the existence of these air currents was discovered so far as the Graeco-Roman world was concerned, by the Greek sailor Hippalus, and this contributed to the growth and the volume of their trade with India. The Indians however seem to have known it centuries ago, and utilised these winds to facilitate the journey of their sailing vessels.

The monsoon wind brought as it brings in our own days the charge of moisture which converted into rain, helped the agriculturist who devised his seasons for ploughing and sowing, accordingly.

The soil of India, which has not changed much with in historic times varies considerably in the different regions. Generally in the plain of the North it consists mainly of alluvial deposits. Geologists believe that the whole plain has been produced by the deposit of the fine rock crumblings brought down by the two great river systems. In the region of the

Character of the soil

Delta the soil is entirely clayey, with very little rocky matter in it and is black in colour. While in the plain of Hindustan. the soil, contains rock crumblings and mineral matters.

In the Deccan, the soil varies considerably. In the so-called *Deccan Trap*, which contains by far the so-called black cotton soil, it is mainly basaltic rock, and is supposed to have been of volcanic origin. This soil is dark in colour, very fertile and its water-bearing capacity is very great. This covers the whole of the North Western part of the Deccan and embraces two thirds of Kathiwar.

In other parts of the Deccan and a part of the tract to the north of Kathiwar, the soil cosists of hard crystalline Archaean Rock. The soil here is light and porous. The rain enters easily and is passed away to the subsoil.

In addition to these there are regions where the soil is sandy. This is the case in a large part of the region to the South of the Indus Valley. A large part of Rajputna is sandy desert.

Forests

Forests exist even now in large tracts of India. At present the forest areas, include a large part of Tarai Region, the Assam Valley, the Sunderbands, and a large part of Central India and Chota Nagpur.

In ancient times the forest area was much larger. In fact the early inhabited settlements were but islands in the midst of the forest. The Vedas speak of forests repeatedly. In the Buddhist literature we hear of the Mahā-Kalinga forest to the west of the Orissa sea coast. The Rāmāyana, describes the forest region to the east and south of Mithilā which was then the home of savage enemies of the Aryan race. Pañchavati and practically the whole southern region was dense forest in those days. A large part of the Mahratta country formed till a very late

period the celebrated Daṇḍakāraṇya, which was cleared only in historical times. The region of the Vindhya hills too was covered with forest and we have innumerable references to the state of affairs in the forest regions in Indian literature and only in recent historical times they have been partially cleared.

These forests of India are of great economic value, and even now the Government derives a large revenue from them. In ancient times they were of great service to the people. The forests supplied the early builders with timbers to build their houses with. The Sal (Shorea robusta) the sisoo (Dalbergia Sisoo), the Black wood of Malabar the Deodar, and the Pine, were of great service to men.

In Malabar the Sandal wood grew wild and it was largely exported to the other countries of the ancient world. A large number of other forest products were also valuable. Thus the *Myrobalam*, furnished tanning material. The Bamboo,—the giant grass, supplied building materials to the poor. A large number of forest trees and shrubs were utilised for their medicinal properties. Canes, and creepers were used for basket making. Smaller trees furnished fuel in an age when coal was unknown.

The high economic value of the produets of forests, was recognised by Indian princes, and as early as the 4th Cen. B. C. the forests came to be regarded as state property. State Officers not only collected the timber, and other produce, but established manufactories for producing various articles of use. The wild animals too were state property. Game laws were introduced and indiscriminate hunting forbidden. The elephant was used in war. The skin of ferocious animals was collected. The deer was hunted for its flesh.

III

ECONOMIC FLORA

The fertile soil of India is capable of bearing large crops of food-grains and other useful plants. We have evidences to prove that a large number of such plants was either native to the Indian soil or came to be cultivated from remote antiquity. The following are the chief among these :—

Economic flora

RICE—(Oryza Sativa), which now practically forms the staple food of the people of many provinces of India, was indigenous. De Candolle thought it to have been cultivated in China as early as 2700 B.C. Its chief wild habitat extends from South India to Cochin China. Lyall seems to believe in an early cultivation of rice in India and compares its foreign names, e.g., Persian Virinzi, Arabic Aruzz, and Greek Oryza, with the Vedic Vrihi.

Food grains

WHEAT—(Triticum Vulgara.) The history of its cultivation goes as far back as the Vedic period though some scholars deny mention of it in the hymns of the Ṛgveda. De Candolle thought its cultivation to have been pre-historic and almost general throughout the pre-historic centres of civilization. Heer found it in the remains of the habitations of the lake-dwellers of Switzerland. Unger found it in an Egyptian pyramid of 3400 B.C. Philological evidence proves its knowledge among almost all the ancient nations. Probably its cultivation was introduced by the Aryan immigrants who found the soil and climate capable of producing it.

BARLEY—(Hordeum Vulgare ; Sans—yava, Old Per.—yao.) To this plant which is one of the earliest to be cultivated by man, we find the earliest references in the Ṛgveda which contains the word yava. Some scholars have taken it in the sense of grain in general. The cultivation of Yava, which

Barley

has been identified by De Candolle with the Indian Hexastichum variety is even now carried on in large areas of modern India.

Millets

MILLETS—At present the chief millets grown in India are the Jowar Cholum, the Cumboo or Bajra and the Ragi. All these, which require much less water than rice or wheat, seem to have been extensively cultivated from an early period. Regarding the sorghum vulgare there exists some doubt as to whether it was indigenous to India. The case of some other varieties of millets (Miliaceum) is not so much open to doubt. As to the Ragi, Watt says: "There is perhaps no doubt that as a cultivated crop it originated in India" (Ragi—Eleusine Coracana).

See Watt's, Eco. Pro. of Ind, p. 1032.

Pulses

A large variety of pulses, too, was cultivated even in the earliest mes. It is difficult to find out whether they were indigenous to India, but there is no doubt that their cultivation goes back to the period of the Saṃhitās other than the Ṛg-veda. These latter mention the Mudga (Phaseolus Mungs), Maṣa (Phaseolus Radiatus), Masura (Ervum Hessutim), Kulattha (Dolichos Oliflorus).

Fibrous plants

Next in importance to the food-grains, we have important fibrous plants. These were of great service to humanity since they supplied man with materials for clothing and thereby protected him from the extremes of heat and cold. In India, not only do we find a large number of such plants but most of these seem to have been indigenous to her soil where they were earliest cultivated and whence the world learnt their use. Chief among the fibrous plants of India are the following :—

COTTON—Pre-eminent among the fibrous plants is cotton

which was indigenous to India and from her soil, its knowledge and cultivation spread to the rest of the world. This would appear from the fact that the name of this plant has been borrowed by all the nations of antiquity from India. Thus Sanskrit karpāsa, became kapas in Hebrew, (and this word was used to designate the green hanging, in the book of Esther) and carpasos or carbasos in Greek and in Latin. The earliest Greek information about this is furnished by Ktesias and later on by Theophrastus and Herodotus, whose way of describing it as the wool of trees, showed Greek ignorance about it. We have no information about its cultivation elsewhere—not even in China. where it is believed to have been first cultivated in the 13th Cen. A.D; Neither in Egypt, though Lassen once supposed the Mummy cloth to have been cotton, but this has been refuted by Mr. Thomson the kew expert. (J.R.A.S. 1898 p. 250-51)

Cotton arboreum (Gossypium indicum)

The earliest mention of cotton is in the Āśvalāyana Śrauta Sūtra (VI. 4. 17.). The absence of the word kārpāsa in the Vedic literature proper may be explained by the fact that the Aryans had not by that time reached the cotton producing districts in the South or in the East.

White cotton, Simula or cotton silk (Erodendron anfractuosum). Though doubtfully indigenous, its cultivation goes to the Vedic period and it has been since then of great service as furnishing material for pillows and is mentioned in the Atharva Veda.

Śaṇa was also probably indigenous to India and its cultivation goes to the earliest historical period, It is mentioned in the Atharva Veda, (II.4.5) as growiug in the forest. It is also mentioned in the Śatap Br. (iii-2-1-11 ; 1—6—1—24) and in the later sūtras.

Sana hemp, (Crotalaria juncia)

LINEN—(Linum usitatissimum) its cultivation and use seem to go back to the Vedic peried. Its various names are Atasi, Uma and Kṣauma,

Linen Flax and (watts P, 720—21)

Susruta also speaks of the medicinal properties of atasi oil. Later authorities repeatedly mention it.

JUTE—(Corchorus)—Variously called by different authors Identified by some with Sk. Patta, or Kālaśāka. originally indigenous to India and parts of China, its cultivation all throughout historic period has been mainly confined to Bengal.

Jute. (Corchorus olitorices)

SUGAR CANE—Of plants producing suger the sugarcane has been the chief of a number of varietes. It has been an important indigenous plant. According to Watts at least five such grasses were natives of India, one of the chief among them being the Saccharum officinarum which is mentioned as early as the Athava Veda. Atharva Veda 1. 34. 5, mention Ikṣu, see also XII. 2. 54 ; xlii, 100, 277.

Suger-cane (Saccgarum officinarccm)

Sugar from the juice of this plant was pre-eminently an Indian commodity and there is reason to believe that the rest of the world derieved their equivalent of sugar from the Indian Śarkarā. (Compare Arabic Shakar, Latin Saccharum, French Sucre, Eng. Sugar.)

Of oil bearing plants which have been indigenous to India, or have been cutivated since the remotest historical period are the following e. g.

Oeleferous plants :—

TILA--According to Sir George Watts it may be regarded as indignous to India. It has been cultivated from the earliest times being respeatedly mentioned in the Atharva Veda (A. v. II. 8. 3) XII. 2. 54 ; XVIII. 3. 69, ; XVIII. 4. and in other Samhitās. In the historical period it was regularly exported from India, its importance being due to its oil.

Tila Sesamum indicum

CASTOR.—Probably a native of India from the earliest times. Its cultivation goes back to the later Vedic period, being first mentioned in the Sāṅkhy. Ār., XII. 8. Suśruta mentions the medicinal properties of its oil.

Castor (Ricinus communis) or the Eranda

MUSTARD.—Important for its oil and for medicinal and other properties. Specimens of it are found elsewhere in the world but it may be regarded as a native of India. Its cultivation too goes back to the close of the Vedic period, and is first mentioned in the Brāhmaṇa literature (Chāndogya, III. 14-3. Ṣaḍviṃ. Br., V. 2. Sāṅkhāy. Śr. Su., IV. 15. 8).

Mustard Seed (Brassica Campestris and Brassica nigra) or Sarsapa

MAHUA.—Valued even now, for its oil and its use as food. Its medicinal properties are mentioned in Suśruta, Caraka and other works.

Mahua (Bassia latifolia) or Madhuka

COCOANUT.—It is iiidigenous to a large part of the Tropical region. In India, it has been a native of Malabar, S. E. coast, and Bengal. Its importance has been very great and it has been repeatedly mentioned in early literature.

Cocoanut (Cocos nucifera)

Of spices and aromatic plants we may mention the following. The cultivation and importance of these is mentioned in the historical period. Some of these plants were natives to the Indian soil, while a large number of them was brought from the neighbouring islands, by the adventurous Indian sailors of antiquity.

PEPPER.—Lassen derives its Greek name peperi and Latin name peper from the Sanskrit pippali. It was extensively cultivated in the west coast of Southern India from the earliest times. According to Schoff, (Periplus p. 213-4) its use was unknown to the Egyptians and Hebrews and it was the

Pepper (Piper nigrum)

Dravidian merchants who carried it to the westerners. It was an article of export to the Western market and its trade brought unheard-of profits to Indian merchants. According to Pliny, 15 denarii were offered for a pound of pepper (Pliny XII. 14). Alaric demanded 3000 lbs. of pepper along with gold and silver for raising the siege of Rome (Gibbon, Decline and Fall, Ch. XXXI.)

CLOVES.—Its mention in Indian Literature goes back to the days of the Rāmāyaṇa and Caraka. Its name, derivable from Malaya Leh-bang, suggests according to some authorities that it was brought from Malaya. The historian Paulus Æginata states that it was brought to Rome from India.

Cloves (Eugenia caryophyllus aromaticus

CARDAMOM.—It is believed to have been indigenous to Southern and Western India where both varieties, major and minor, grow wild. It was also an article of export to the Western markets.

Cardamom (Eletaria cardamonum.

CINNAMON.—It is doubtful whether it was originally a native of India. In historical times, however, it was brought from the Islands, cultivated and exported.

Cinnamon (Cinnamomum zeylanicum)

SAFFRON.—Probably, not a native of India but of the regions of south-western Europe; its cultivation is now confined to the valley of Kashmir, so far as India is concerned. This can be traced back to the post-Vedic period. Kuṅkuma is mentioned in the Suśruta Saṃhitā, and in some other medical works where we find its medical properties described.

Saffron (Crocus sativus)

COSTUS.—Root of Saussuarea Lappa, native of Kashmir and north-Indian hills, is mentioned as early as the Atharva Veda (Kuṣṭha). Not to speak of its medicinal properties it was highly prized by the Romans

Costus.

as a culinary spice and as a perfume, and was exported to Rome from India (Pliny, XII 25.)

Spikenard. (Nardostachys Jatamanisi.)

SPIKENARD.—A perennial herb of the Alpina Himalaya, it was probably introduced in India proper, from the hilly regions where it was grown. Its earliest mention is to be found in the medical literature of the Hindus. Nalada or Naladi is mentioned in the Vedic literature (V. I., 1, 437.)

The Atharva Veda mentions Aja-śṛṅgi, Arāṭakī and Tīkshṇa-śṛṅgi along with these aromatics.

Nard. (Nardus Indicus)

NARD.—Leaf nard was exported from India to the Roman markets, and was sold at the rate of 40 to 75 denarii per lb. Spikenard held the foremost place among the ointments of the day. (Pliny, XII. 26; also Mark XIV; see Schoff's note on the *Periplus*, 188-189). So also was Khuskhus (Vetiveria odorata) important for aromatic properties.

Ginger. (Zingiber officinale.)

GINGER.—It was also a native Indian product, and from India its use probably spread to some other nations. This would appear from philological evidence, which shows that the name of this plant in many languages is derived from its Sanskrit equivalent. Thus, Sanskrit Śṛṅgivera, becomes Zanzabul in Arabic and Zingiber in Greek. The word Sringibera has been supposed by some to have been of Dravidian origin while others would like to regard it as a hybrid of Skt. Śṛṅga and Drv. Vera meaning root.

Turmeric. Curcuma, haldi)

TURMERIC.—It was grown in India from earliest times and many nations learnt its use from the Indians. Thus Sanskrit Haridrā is transformed into Persian and Arabic Al Hard.

COLOUR-BEARING PLANTS.—Of these, the chief in antiquity was Indigo, identified by De Candolle with the Nīlī of classical literature. Most probably it was an indigenous plant of the Indian soil, though many varities of it exist wild in the tropics. We have no evidence to prove that any other country grew this plant in antiquity ; and hence the ancients called it Indicum. It was valued in the western world for its rich colour and medicinal properties and was largely exported to the western markets (Pliny XXXV, 25-27).

Colour-bearing plants. (Indigoferra tinctoria)

Its supposed presence in the cloth of the mummy led Royle to suppose that trade relations existed between India and the land of the Pharoahs in the 3rd millenium B. C. The presence of Indigo has been chemically tested and proved to be beyond doubt (J. R. A. S. 1898, p. 250).

In the Periplus, it is mentioned as exported from Barbaricum (Schoff's note, see p. 172-3).

SANDALWOOD.—Another important Indian plant was the Sandalwood tree, a native of the hills of South-Western India *e. g.* the regions of Mysore, Coorg, and the Nilghiris.

Sandalwood. (Santalum album)

From a very remote antiquity, sandalwood was exported to the markets of the ancient world. It is supposed by some scholars that the "Sonter" incense mentioned in the records of the naval expedition to Puanit in the reign of queen Hatsep-situ of Egypt is nothing but Malabar Sandal wood (Santalum album).

Other important Indian plants include varieties of fruit-bearing trees and plants. Of these, we may mention the Mango tree (Mangifera Indica), the Jack-fruit tree (Artocarpus Integrifolia), Plums (Prunus etc.), various kinds of apples and nuts, varieties of Palm, including the arica and date palms, the plantain (Musa Sapientum) Grapes and varieties of orange, citron and varieties of melon.

The cultivation of grapes goes back to a period anterior to the 7th cen. B. C. Grapes are mentioned in the Sūtras of Pāṇini, which speak of Kapiśā being the premier vine growing district of India.

The vegetables indigenous to India vary in its different parts and are too numerous to relate. Varieties of sweet and bulbous roots too existed from the earliest times.

Along with these must be mentioned two other Indian products of importance e.g., the silk worm and the lac insect.

SILK.—It is very difficult to trace the introduction of silk in India. Silk-worm was cultured in China as early as the 28th cen. B. C. and according to some historians, a Chinese princess married to a Khotan prince, secretly carried with her the silk-worm and the Mulberry plant. Some scholars attribute the introduction of silk in India to an intercourse with China, of which, there is reason to believe, the earliest evidence goes back to the 6th Century B. C. There is however evidence to prove that varieties of the silk-worm, existed in the Eastern part of India e.g., in North Bengal and Assam, and these regions are a continuation of the habitat of the silk-worm.

Silk.

At present, the following three varieties of silk Saturniidæ *e.g.*, wild silk, exist in Eastern India *e.g.*, the Tasar (Antheræa paphia) mainly of Bengal, the Antheraea assama (Muga of Assam) and the Attacus ricini Eri). Most of these depend on nature and hardly require any human care. We have references to the large use of silk from the seventh cen. B. C. Silk is mentioned in the Sūtras of Pāṇini, in early Buddhist Literature (Koseyam), and in the Kautiliya Arthaśastra which mentions indigenous silk fabric along with the produce of China (Cinapaṭṭaḥ and Cīnabhumijāḥ.)

Various plants suitable to the growth of the worm existed from time immemorial.

Lac Insect (Tachardia Lacca)

LAC INSECT.—The lac insect was endemic in India and even now is confined to her soil. Lākṣā occurs in Vedic literature, being first mentioned in the Atharva Veda. References to Lākṣā are numerous in the Sūtra literature as well as in the Epic and poetical works.

III

ECONOMIC CONSIDERATIONS ABOUT THE FAUNA

The animals of India both domestic and wild are numerous and varied. India was blessed with the soil and climate capable of bearing animals useful to man.

Cattle.

CATTLE.—At first the mass of Indian population was pastoral. They paid great attention to the growth and improvement of cattle, which formed their chief wealth during the Vedic period. The cattle wealth of the Punjab has been very great even up to our own days. As in our days, sheep and goats were reared on large scales. The wool-bearing sheep of the Gandhara and the Parusṇi districts is repeatedly mentioned even in the Ṛg-veda. Later on, the Himalayan regions became the chief source of wool Sheep and goats were largely used for food. Wild goats were common. Horses were common in almost all provinces, though in Indian literature those of the West and North are praised. This condition prevails even now. The domestication and use of the horse was extensive even in the Vedic period. They were used for riding and transport purposes, both in peace and war. Asses and mules were also kept and used for various purposes. Horse-racing was an important amusement.

Camels were either natives of the desert regions or brought into India at an early date. Even in the Vedic period, we find them drawing wagons or bearing burden (A. V., XX. 127, 132).

Buffaloes were used for domestic purposes. Like cows they were domesticated in the pre-vedic period. Apart from milk bearing, their flesh was used for food.

The taming of elephants was complete in early Vedic times or even earlier. They were used in war, and also for other purposes.

With wild animals, we are not so much concerned, though, as a matter of fact, the early settlers found it very difficult to hold their own against the lion, tiger, panther or leopard, bear, wolf, hyæna, jackal, wild boar, tusked elephant, rhinoceros, and wild buffalo. In course of time these ferocious enemies were put down. The skin of animals was used for household purposes, the wool of some was made into blankets, while the flesh of the deer, boar, goat, and even of the rhino was eaten. The thick hide and horn of the rhino and the tusks of elephants were used for various purposes and exported to the markets of the West. The tail of the yak was made into chauries while from the musk-deer was extracted the aromatic substance known as musk (moschus moschiferus).

Fishing.

FISHING.—Another asset of nature has been the excellent and abundant supply of fish from the rivers. Even now the supply seems to be inexhaustible. Fish-eating in all the provinces, especially in the east, gave an opportunity to many to earn their livelihood by fishery and even in the Vedic period fishermen formed a caste.

Pearl-fishery

PEARL-FISHERY.—Oyster pearls are found in many Indian rivers not to speak of pearl-beds on the sea coast. From an early period pearl-fishery on the coast of Ceylon and the eastern coast of Southern India was a profitable business. The India pearl found its way to the western markets and fetched a high price.

IV

MINERAL WEALTH

MINERAL WEALTH.—India at present is regarded as considerably rich in minerals. She is found to contain not only large quantities of Gold Copper and Iron, but also Coal, Manganese and Mica in abundance. Owing to the lack of effort on the part of the people and want of the up-to-date machinery and organisation, she is not in a position to take the place she deserves among the industrial nations of the world.

Mineral wealth

In ancient days, when neither the use of coal nor that of many other metals was known, she was considered to be rich in mineral resources. Her people learnt the use and the method of extracting various metals and we have even now the remains of the earliest mining centres. The Vedic inhabitants used gold for various purposes, the metal being obtained mainly from river washings. Later on, other centres of the gold bearing quartz were discovered mainly in Southern India. Towards the close of the Vedic period, the Aryans became familiar with zinc, copper, tin, and lead in addition to gold, silver and iron.

The Greeks, when they came to India, were struck with the mineral wealth of the country. Megasthenes says (Frag. 1) that "While the soil bears on its surface all kinds of fruits known to cultivation, it has also underground numerous veins of all sorts of metals, for it contains much gold and silver, and copper and iron in no small quantities and even tin and other metals which are employed in making articles of use and ornaments as well as the implements and accoutrements of war."

Several later authorities speak of the presence of silver mines in India, which is corroborated even by Moslem writers.

Copper too was extracted in various localities. Iron was found in large quantities and from it was made excellent steel, which found its way to the land of the Hebrews, Syria and Arabia, as we shall see later on. As regards iron, India is now-a-days regarded as very rich, and laterite, haematite magnatite ores are found in abundance.

Of the sources of other metals mentioned in early Indian literature, we have but little information *e g.*, Mercury, Tin, Lead, Zinc ; probably there existed mines which are now no longer worked. Sulphides of Antimony and Arsenic were found in large quantities, and are even now abundant.

PRECIOUS STONES.—India is and was rich in precious stones. Diamond mines existed in India but they are now supposed to be exhausted. Sapphires, and Topazes too were found in various places and varieties of precious stones were exported to the western markets. We shall speak of them in detail later on.

Precious stones

SALT.—Salt mines exist in many places in India. In ancient days, salt was extracted from sea water, mines of rock salt, and from salt lakes The output of salt mines on the Punjab border or of the Samber lake supplies the needs of more than half of India. In the days of the Mauryas salt mining was a government monopoly.

Salt

Alkali deposits of crude potash and salt-petre existed and are found even now in various places in India.

CHAPTER III

I

EARLY HISTORY OF MAN AND HIS CULTURE

It is difficult to determine even to a degree of approximation the date of the advent of man in a country like India, so favourably situated and provided with the bounties of nature. We have no history of the races of men who dwelt there, until we come to the accounts of the settlers with whom the intellectual and material advancement of the country is so closely bound.

The advent of the so-called Aryan settlers (cir. 3000 B.C.) is a mystery and still more the circumstances of their progress and advancement. They spring into our view all on a sudden with a highly developed civilization, and with an amount of culture hardly inferior to that of any of the contemporary sections of mankind.

Previous to the Aryans, various races of men dwelt in India. Pre-historic archæology records the existence of man in the Palæolithic and Neo litbic ages. Records of the palæolithic period as also of the succeeding age are however very scanty and ossiferous caves bearing the remains of primitive men are very rare. Hacket found an ovate instrument of chipped quartzite at Bhutra lying in undisturbed post-tertiary gravels, and containing the bones of *Hippopotamus Namadicus* and other extinct animals. Similar primitive instruments, of agate, quart-zite or laterite have been found by Wynne, Bruce Foote, Carlleyle and other scholars in various places of Northern and Southern India.[1]

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[1] See Imperial Gazeteer, Vol. II. pp. 90, 92 ; also the work 'Foote collection of Indian Pre-historic and Proto-historic Antiquities' by Mr. Bruce Foote. Madras Govt. Press, 1916.

Neolithic

NEOLITHIC—Remains of the Neolithic period are greater in number and the labours of indefatigable scholars like Bruce Foote, Cockburn, and Carlleyle have been rewarded with such finds all over India, though such remains are scantier in the Punjab and Bengal. They consist not only of stone implements, early pottery, and other dug-out remains from mounds which are presumably the sites of neolithic communities but also of ruddle drawings.[1] Of the first, we have innumerable specimens found througout India in the shape of flint knives, hammers, and broken celts of various types. Of the second class we have in the records of Bruce Foote an account of neolithic settlements and even of implement factories.[2] According to the same author, the Circular cinder mounds in the district of Bellary represent the remains of neolithic age.

Apart from these implements, we have sepulchral remains of the neolithic period. Not only do we have human skeletons in various detached graves, but also have innumerable sites, which seem to have been the burial places of ancient communities.[3] They are numerous in Southern India and are in themselves objects of close study.[4]

The above evidences as regards the paleolithic and neolithic men are but of little interest to the student of economic history, though they help us in solving greater problems connected with the early history and distribution of mankind. As we leave the Neolithic period and come to the age of the use of metals, we meet with evidences which throw light on the history of the culture of races, who dwelt in the various regions of India in comparatively recent yet pre-historic times.

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1 See Cockburn's article J R.A.S. 1899; also Imp. Gazeteer II p. 94.

2 Imp. Gazeteer II pp 93, 94.

3 Imp. Gazeteer II pp. 95, 96

4 Imp. Gazeteer II, pp. 95, 96.

THE AGE OF THE USE OF METALS; COPPER AGE.—During the age immediately succeeding the neolithic period, India seems to have been peopled presumably by a race or races of men who were not only acquainted with the use of metals, but had attained a high civilization. Next to the races, who had attained the neolithic culture there came a race, who though not familiar with the use of bronze, seems to have known the use of copper and some other metals, and it is inferred by many that the use of copper intervened between that of stone and iron. This is the view of the late Dr. V. Smith, whose article on the Copper and Bronze implements in India[1] appeared in 1905. His theory is based on an examination of the finds in Gungeria in Central India in 1870. The finds consisted of a large number of copper implements including some bar celts two feet long and a number of silver plates and animal figures weighing 8 lbs. The bar celts resembled those of Peruvia, Babylonia and Egypt. Dr. Smith summed up as follows :—"A remote date must be assigned to both the copper tools and the silver ornaments. The Irish celts many of which are identical with those of Gungeria specimens are assigned to period 2000 B.C." [2]

More important information is furnished by those sepulchral remains, which are so common to the Madras Presidency. These, which are of various shapes and patterns, furnish us with data and help us to reconstruct the history of a well developed civilization, of which records are now lost. Thus we have specimens of cairns or mounds which contain

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[1] Indian Antiquary 1905.

[2] Apart from those mentioned above, implements of pure copper have been found at 12 other sites namely at Rajpur in Bijnou district, Mathura, Mainpuri, Furukabad and Itawa districts, at Bithur near Cawnpur and Kosen near Allahabad, and in the Hazaribagh district in Chota Nagpur. Gazetteer II. P.

the remains of men of a past age. Megalithic tombs too are very common in many of these southern districts. In some cases there are kistvaens, in others more commonly Dolmers or Cairns. These South Indian graves of the Pre-historic period differ from those found elsewhere in the world.

These sepulchral monuments have been studied in detail by various scholars. Those of Coimbatore were studied by Walhouse,[1] those of Tinnevelly by Mr. Rea,[2] while an account of the graves near Pallavaram was given by Surgeon General Biddie who visited the spot in 1886.[3]

The Coimbatore Monuments which fall into two important groups (*e. g.* those near Nallampatti and those near the Malabar border) consist of chambers, formed of enormous slabs, covered over with cap-stones, over which were placed heaps of black stones often rising up to 30 feet in height. The larger cairns are surrounded with circles of upright stones. Those of Tinnevelly differ slightly in their outward appearance while those of Malabar called Topekals, form a distinct group.

All these sepulchres contain terra-cotta sarcophagi of different patterns. In some places they are oblong, in other places pyriform, while those found in Tinnevelly are enlongated globular pots of thick red earthen-ware.[4] These sarcophagi bear resemblance to those found elsewhere. The oblong specimens are identical in form with those found at Gehrareh

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1 Walhouse, Megalithic Monuments in Coimbatore District. J.R.A.S. 1875.

2 Pre-historic Antiquities of Tinnevelly, by A. Rea, Ar. Sur. Rep. 1902-1903 & 1903-4.

3 See J. R A. S. 1887, p. 693.

See also J. R. A. S. 1899 "Pre historic Burial sites in Southern India" by Sewell and Do. 1902,—The Cinder-mounds of Bellary.

4 Capt. Newbold discovered a coffin shaped trough measuring 10′×2′ standing on eight legs.

near Bagdad, showing an archaic connection of the races of these two different localties in pre-historic times.[1]

Apart from the sarcophagi patterns, the contents are of great importance. They seem to be the remnants of an advanced type of civilization, which flourished in pre-historic ages, and they do not betray any vestige of palaeolithic or pre-lithic cultures.

The Coimbatore finds included fine pottery, iron implements such as knives and spear blades, as also human bones. Those of Tinnevelly as examined and studied by Mr. Rea were of greater importance.[2] They included fine pottery, iron implements and weapons, vessels and personal ornaments of bronze, lamps of iron, stone-slabs, household stone implements, traces of cloth and wood, quantities of mica, swords, tridents, lances, axes, spears, arrows, daggers, mostly of iron, ornamental vase-stands, bowls, cups, grotesque images of the cock, bangles, necklaces, scent-bottles of bronze, diadems of gold, bearing close resemblances to those of other places, and a ring of iron covered with gold plating (found at Vallanad). A number of urns contained husks of rice and millets. We have moreover, representations in metal of domestic and wild animals. Of these latter we have the figures of the buffalo, goat, sheep, cock, tiger, elephant, and antelope.

To sum up, these remains evidently belong to a race of men who were skilful in moulding pottery, in casting or brating metals, in weaving, in working stone and wood, with a considerable artistic skill and possessing a good agricultural knowledge. Rea thinks that their religion was perhaps devil-worship as evidenced by their various sacrificial implements similar to those used in that worship.

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[1] Coffin shaped terra-cotta sarcophagi have been found In Babylon, Egypt and Italy.

[2] Ar. Sur. Rep. 1902-3 p. 111-140.

II

MORE NEW DISCOVERIES

More interesting finds have recently been discovered throwing some additional light on the past civilization of races inhabiting India or on their connection with other peoples of antiquity. In November 1915 some highly polished black and red pottery bearing peculiar marks on them were discovered in the course of excavations at Maulali and Raigir. Mr. Yazdani, Superintendent of the Archaeological Department of His Highness the Nizam, visited the Madras Museum where he found a large quantity of marked pottery bearing similar marks which he carefully studied. These marks had been noted by Mr. Bruce Foote, who took them not unreasonably for owner's marks.[1] Mr. Yazdani published a note on his study in J. H. Ar. So. No. 3, 1917. The most notable feature about these marks according to him was that about 75 p.c. of these marks were found to be identical with the alphabetical signs given by Evans in his comparative table showing the relation between Cretan and Ægean, Egypto-Lybian and Lybian writings. He came to the conclusion that an identity to such an extent cannot be accidental and one is led to believe that the cairn-builders of South India had a distinct connection either of stock or culture with the Mediterranean race whom Sergi calls Eur-African. This view further gains ground from the identity and uniformity in the shape and ornamentalities of pottery, in the working of the stone, in the ritual of the dead, and in the curious mode of burial in an extended position in a

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[1] Catalogue of Pre-historic remains in the Madras Museum pp. XVII and XXXV.

doubled up and crouching posture and the burying of several bodies together in a family vault. In his article on this pottery, entitled "Megalithic remains of the Deccan, a new feature of them" he further sums up by saying that "Evidence is forthcoming from research in independent fields of the relation of the Ægean races to the Pre-Vedic peoples of India and it is not unlikely that the megaliths of Southern India when carefully explored, and the marked pottery systematically studied, may confirm that relation and help us in the determination of the alphabet which was common to the races and ultimately in the decipherment of the Inscriptions which are now sealed records." [1]

So much for an account of the races, of whom nothing, but an unmistakable evidence of their existence in the remote past, has come down to us. Every thing else is forgotten ; even tradition is silent. Their relics are but dumb witnesses of their old culture They remain sealed records to us and will remain so until and unless the genius of man deciphers them and unfolds to us the history of a race who had attained so high a cultural development.

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[1] Journal of the Hyderabad Archæological Society 1917, pp. 56 to 62.

III

THE ARYANS

The Aryans

Next to these and probably last in the series of migrations in antiquity, came the race, whom tradition regards as the forefathers of the high-caste Hindus of the present day. We would designate this race by the name Aryan, as it was the term they used in describing themselves, as opposed to the aborigines of the country. A systematic historical record of this race is wanting. For we have no account as to the date of its settlement in India during the earliest period ; nor have we any systematic records depicting its civilization. We have only the religious literature of the people.

From the early part of the last century, the history of this race attracted the attention of the scholars of the West and evoked in them the greatest possible interest in the subject. The greatest of European scholars devoted years to the study of the culture of the race, as its language, religion, and mythology were akin to those of their forefathers, and its philosophy and literature far outshone their own. Oriental studies had by that time been fairly progressing among the Europeans, who had established a direct contact with the lands of the East, and established their dominions in various parts of Asia. Comparative philology and comparative mythology had as the result of those studies developed into sciences, while anthropology was gradually progressing to the status of a science.

The conscious European mind, with the help of these sciences, discovered an affinity in race and language, with the Aryans of India, and gradually evolved the theory of the past existence of a race, from which they along with the

Indian Aryans and the Iranians, claimed a common descent. The theory received general acceptance and the best brains of Europe were engaged in trying to find out the original home of the Central Aryan stock.

The original home of the Aryans

The question of the original home of this people has been debated upon for the past hundred years. This subject is a complicated one and owing to the lack of evidence with regard to chronology, has given rise to the widest possible divergence of opinion among philologists, antiquarians and anthropologists. Affinity in language, mythology, or religion, resemblances of racial types, supposed or real, have all been exploited to form bases for theories as to the original location of the Vedic Aryans, along with their supposed kinsmen, the ancestors of the European nations. At one time Central Asia was supposed to be the original home of the Aryan stock and this opinion was favoured by a large number of scholars. First propounded by J. G. Rhode (in 1820), the theory of Central Asian home received countenance from Pott, Lassen, and Grimm and received strong support from Max Müller in 1859.

Divergences of opinion however soon arose and Adolph Pictet in his 'Origines Indo-Européennes' tried to place them in the region of the Caspian. He was followed by Justi, the author of the 'Primeval Indo-Germanic Period' and he in his turn was also strongly, supported by Schleicher. Later on, some tried to prove Southern Russia as the original home in view of the supposed analogy between Sanskrit and Lithuanian. Other Scholars, pre-eminently Latham (1854), came to the conclusion that the original home should be looked for in Europe and he was supported by Fick, Benfey and Geiger. Pietrement placed it in Siberia while Cuno attempted to locate it in the North-European plain (1871).

The controversy is not ended yet, and "it still divides scholars into hostile camps, holding diverse views as to the original home of the Aryans" one holding the Asiatic hypothesis, while the other party preferring an original home somewhere in Europe. From the point of view of philological investigations, the view of Dr. Schrader appears to be free from any party bias. In his work on the Indo-Europeon races, he has submitted several points for consideration. These, along with the solution they call for, may be summarised as follows :—

The evidence of linguistic palæontology is far from decisive. The primitive Aryan race was pastoral and semi-nomadic and consequently extended over a vast area. The grade of civilization agreed clearly with that disclosed by the oldest lake dwellings of Switzerland and consequently it seemed to have existed in Europe at an early epoch. The philological evidence thus does not enable us to draw any sharp line of division between the Asiatic and European branches of the Aryan people. A comparative study of the vocabularies and religion convinces us of the close similarity between the diverse branches. The original cradle of the race was in the cold icy regions of the north, since words for ice and snow are common to all Aryan languages.[1]

The above is a summary of the views of scholars who carried on their investigations mainly with the help of philological evidence. This latter was once a favourite weapon with the anthropologists. Of late, however a great change has come. Anthropologists, now-a-days do not attach any imporance to the supposed permanence of the relation between race and language. Cuno among philologists demolished the

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[1] For a summary of Schrader's views, see his 'Pre-historic Antiquities of the Aryan Peoples' IV. Ch. XIV ; also Taylor's 'Origin of the Aryans pp. 50-53.

assumption that 'Aryan blood was co-extensive with Aryan speech.' Some of his successors attributed the origin of various languages to a process of evolution and in 1880 they were followed by Delbrück who denied the existence of any uniform primitive Aryan speech.

In the bands of the anthropologists, the controversy took a different turn. Some of the greatest among them like Broca and Topinard repeatedly raised their voices against the confidence often put in philological evidence. They have tried to prove the insignificant ethnological value of philological considerations and following them we have a large number of scholars who deny altogether the existence of a primitive Aryan people. This view now-a-days is gaining ground everywhere, and eminent men like Keane have come to regard the term 'Aryan' as a mere linguistic expression "entirely forced into the domain of ethnology by philologists," though some anthopologists still believe in the past existence of communities, who living in the Hindu Kush and Carpathian, evolved the Aryan mother tongue and had a certain amount of uniformity in their physical characteristic. They believe moreover in the absorption of this race in a hundred other races even in pre-historic times. Hence, in their opinion the use of the word 'Aryan' must be regarded as a misnomer.[1]

The Aryan question is far from being settled. For our purpose, it may not be of so much importance, as it is in the domain of Anthropology or of Pre-historic culture. We may still give the name 'Aryans' to the Vedic Indians, since that was the term they used in designating themselves.

As to the original home of these people, something may be said here regarding the evidence of the Vedas The hymns give us absolutely no clue as to the original home

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[1] Keane and Haddon, pp. 441, 442.

of the composers but they show a south-easterly expansion of the race from the region of the hills of the western Punjab, to the plains eastward. Moreover, they betray a familiarity with the regions of the western Punjab and the region of the Kabul valley as we shall see later on. All these seem to point to the fact that these regions formed the home of the Aryans during the period that some of the hymns were composed. Formerly they must have lived somewhere in the region to the north of the Hindukush along with the fore-fathers of the Iranians, with whom they had much in common, in religion, language and custom and from whom they separated after a bitter struggle, which had its origin probably in religious disputes. Apart from this, we cannot say anything about the home of the Vedic Indians in their pre-Iranian days and an investigation of that subject must be left to antiquarians and anthropologists.

IV

THE PRIMITIVE ARYANS AND THE INDO-ARYANS

The Rig Veda is our earliest record about the Aryans and a careful study of this book convinces us that by the time of the composition of the hymns, the Aryans had attained the stage of culture which was far from primitive, as also "sharply separated from that of the Western peoples supposed to be related to them" (Die Literature des alten Indian, p. 1.). The mass of the people had taken to settled life ; agriculture was well advanced ; private property in land was established, the family organisation was complete. As we shall see presently, they were acquainted with the use of gold, silver, and another metal, the nature of which will be discussed in a subsequent chapter.

We know very little about the primitive Aryans before their migration into different lands. As yet scholars are not unanimous about the state of culture attained by them at that stage. The subject of the earliest Aryan civilisation was studied by Max Müller (see his Biographies of Words, Chapter on the earliest Aryan civilisation) and by others, prominent among whom is Schrader, the author of Pre-historic Antiquities of the Aryans. A comparison between the civilisation of the Indo-Aryans and the Indo-Europeans convinces us of the great advancement which the former had attained upon the civilisation of the primitive Aryans. The primitive Aryans knew very little of agriculture and had hardly any conception of private property in land, while their kinsmen in Vedic India had a good knowledge of both. With the primitive Aryans, the various arts were in a rude

state, and they knew one metal only, while the Vedic Aryans had developed weaving, carpentary, working in metals, and probably used metallic currency.

Coming to an explanation of the cultural development of the Vedic Aryans, we may at the outset enquire "whence came this civilisation ?" and in this connection the question arises whether it was due to the contact of the moving Aryans with the cultured Semites of Western Asia or whether it was derived from the cultured but enervated people who were conquered by them in India? The theory of Semite contact found favour with certain scholars, and as early as 1879, Dr. Hommel of Munich tried to show in his learned work "Die Arier Und Semiten" that the Aryan and Semitic nations possessed in common a number of names connected with early civilisation and that they lived in very ancient times in close proximity. The principal words which Dr. Hommel mentioned as Semitic loan-words were the names for bull, horn, lion, gold, silver, and vine. Hommel's views found support from Delitzsch who claimed to have identified 100 Semite roots with corresponding Aryan roots and also from Kremer. Dr. Schrader too believed that the Akadian word Mana (Akin to Hebrew Maneh and Egyptian Mn.) is found in the Rigveda (VIII. 78. 2). Max Müller in his 'Biographies of Words' (pp. 111 to 116) tried to refute these arguments, and refused even to admit "any intercourse between the Semitic inhabitants of Babylonia and the Aryans of India, in later though still pre-Vedic times, as asserted by some scholars on the slenderest evidence." Apart from the slender philological evidence, nothing was forth-coming.

The theory of Semite contact.

Of late however we have historical records proving the contact of these races in the past. The recent researches of the Assyriologists have indeed thrown some remarkable side-lights on this Aryan-Semitic contact in the region of

Sumeria, about the close of the 3rd Millennium B. C. Records have been discovered showing the existence of an Aryan race, the Kassites, who conquered a large part of Sumeria in 1745 B. C. and ruled there for centuries. Of these Kassites nothing more is known except the names of some of their kings and gods. Nothing can be made out of these royal names Gandash, Kashtiliash, Ushshi, and Adumetash. But among the gods, some are distinctly Indo-Aryan. Thus the Vedic Marut figures as Maruttash, Sūrya as Suryash, Bhaga as Bugash. We may hope that a proper study of the Kassite language and phonology will enable scholars to show the real connection of these people with the Indo-Aryans. Next to the Kassites, we have records also of the Mitannians, another Aryan race, who had in the 16th and 17th centuries B.C. established a kingdom in Northern Syria where they ruled for a long time and established relations with the Pharaohs of Egypt and other neighbouring princes (Hall, Ancient History of the Near East, p. 201). The names of the Mitanni kings appear to have been those of an Aryan people. Some of these bear strong resemblance to those of the Vedic Aryans. Of these we may cite the names Artatama, Subandu, (Sk. Subandhu ?) Swardata (Isvardatta ?) and Yasdata (Yasadatta ?). These names are seemingly those of a race speaking either an Aryan, or an Iranoid dialect. Next to these, the discoveries near Boghazkyoi are still more interesting. There has been found a treaty written in cuneiform between the Mittanian King Mattiuaza son of Dushratta and the Hittite conqueror Shubbiluliuma. As protectors of the treaty, the gods of the two peoples were invoked, and in this list, we find the names of Mitra, Varuna, Indra, and the Nāsatyas. (See Hall, p. 201; p. 351-352; Myers, Dawn of History, p. 109). These last two discoveries go to prove at any rate, the existence of

Kassites and the Mitanni.

intercourse in the second Millenium B.C. between a Section of the Aryan race with the Semites, but what connection they had with their kinsmen in India we do not at present know ; and as yet the evidence is not enough to justify us in drawing the conclusion that the Aryan civilisation of India was influenced by that of the Semites of Western Asia.

Next we come to discuss the question of the influence of any pre-Aryan indigenous civilisation of India upon that of the original civilisation of the Aryan race. There

Supposed Dravidian influence.

certainly was a time when it was supposed by most scholars that the pre-Aryan inhabitants of India were semi-savages who succumbed to the inroads of the highly civilized invaders. Modern research which with indefatigable energy tries to pierce the veil of dark antiquity has as yet hardly taken up the study of the culture of those races who inhabited India prior to the Aryan settlements, yet as the result of the labours of some of those we have taken up the study of prehistoric culture of India, we know (as we have tried to show) some thing of a race who cultivated rice and millets, who knew the art of weaving, domesticated the buffalo, goat and sheep, knew the extraction and use of iron, silver and gold, wore silver and gold ornaments, were probably acquainted with the use of the metallic currency, and had most probably devised a rude system of hieroglyphic writing.

The existence of a pre-vedic culture is also attested by some passages of the RgVeda speaking of the gold, silver, and cattle-wealth of the enemies of the Aryan (RV, III, 34, 9 ; also Baden Powell, p. 84.), of their forts and strong-holds, and of the dread inspired by their enmity.

This is all that we know of the contact of the Aryans with the Semite and the pre-Aryan culture of India, which might have influenced the civilisation of the Aryans ; butas

yet, we are not in a position to answer the question whether the Aryans borrowed considerably from these sources. The controversy as to the influence of foreign cultures on the civilisation of the Vedic Aryans is far from being ended and some of the greatest scholars of the present day are coming forward with their own explanations as to the origin of the Indo-aryan culture. Prominent among these may be mentioned the view put forward by Hall, the author of the "Ancient History of the Near East" who on ethnic and other considerations has propounded a theory that the Sumerians were a branch of the Dravidian race originally living in India. They brought their culture developed in that country and planted it in the land of Sumeria. In a footnote to page 174 of his book, he adds that "The culture of India is pre-Aryan and the Aryan Indian owed his civilisation and degeneration to the Dravidians." At present however we are not in a position to answer the question as to the probability or extent of these mutual borrowings. 'Who borrowed from whom and to what extent' is very difficult to answer. The question of Dravidian influence still remains an open one. No evidence has as yet been furnished to prove any considerable Dravidian influence upon the Vedic Indian culture. Even the earliest hymns of the Vedas describe, as we shall see later on, a highly developed society, lacking in almost all the characteristics of a primitive culture. The evidence of pre-history or of philology does not help us in substantiating the views of Hall or his followers. The evidence of the latter science shows rather a contrary influence of Aryan culture upon the civilization of the Dravidians. Hall's theory must therefore be regarded as a piece of brilliant conjecture.[1]

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[1] There can be no question as to the antiquity of Dravidian civilization. Their literature may go back to the 7th or 8th cen. B. C. The

So far as our present evidence goes we may take the Indian Aryan culture as being indigenous in its evolution. In the races to which the composers of the Vedic hymns belonged, we have a conglomeration of several highly gifted and intelligent peoples, placed in an environment entirely favourable to the development of man. The amount of culture which the races possessed in common with many other nations of antiquty, was far from being inconsiderable. The history of its origin is lost in the darkness of antiquity. Racial expansion, contact with other peoples, and the

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history of their settlement may go to a period of greater antiquity. They may be racially identified with the cavern-builders of the south—and the megaliths may be taken to be the monuments of their ancestors But does that go to prove that the Aryan culture was entirely borrowed from them ? Contact with them might have influenced the Aryan Indian culture, but has that been proved to have been of any considerable amount ? On the contrary we find the preponderating influence of Aryan culture on Dravidian civilization. Take their alphabetical system—it has been modified and reduced to the Aryan model—though their peculiar characters have survived. In their language, in their history, in their tradition we find an acknowledgement of Aryan influence. Do we not find the tradition of the Sage Agastya or as he is called, Tamiṛ Muni—as the "earliest teacher of arts sciences and literature to the primitive Dravidian tribes"? (Caldwell's introduction to the Grammar of Dravidian Language p. 114) Do not the existing traditions and the names by which the Brahmans are designated e. g. *Eiyar*—instructors and *parppar*—seers, show the indebtedness of the Dravidians to the Brahmanic culture ? Do we not find the tradition of the Pāṇdyas establishing themselves in the south, long before the 4th cen. B. C. and regarded as an offshoot of the Lunar race of Pāṇdyas of the North? (Caldwell, pp. 110-11). Have not the Southern languages including Tamil inspite of their great antiquity not only assimilated a large number of technial and culture words and roots from Sanskrit, but also many Sanskrit suffixes and idioms ?

With all these evidences before us, we cannot subscribe to the views Hall or his followers, though we think it the duty of all scholars and

favourable influence of the material richness of the land of their habitation, all contributed to accelerate the growth of their culture. As they spread over the whole of India, they learnt to exploit the natural resources of the country. The hostility of enemies not only brought them into contact with diverse elements, but induced, in its turn, an effort for self-preservation and progress, and stimulated the further development of the race. The cultural development of the Indian Aryans has been a slow and gradual process. We find nothing coming into view suddenly. Take the history of Indian economic life, the history of Indian social development, the growth of Indian philosophy—in everything we find stages of evolution—one succeeding the other—the whole forming a series which gives us a complete history of the development of a race. We find nothing abrupt—nothing abnormal springing into our view, which may justify the existence of any extraneous factor, introducing sudden modifications. In the history of India, we find moreover peculiarities in institutional and cultural development, which stand out unique and have parallels nowhere in this world; and the existence

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antiquarians to acknowledge the early civilization of the Tamil peoples. On this much-debated subject, it would be best for us to follow the views of Dr. Caldwell and other Dravidian scholars who have studied the subject thoroughly and are competent to pronounce their judgment. After proving the antiquity of Tamil literature and giving an estimate of the Pre-Aryan civilization of the Dravidians (Caldwell's Grammar, 113-114), Caldwell sums up as follows: "This civilization was probably indigenous in its origin, but it seems to have been indebted for its rapid development at so early a period, to the influence of a succession of small colonies of the Aryans, chiefly Brahmanas from northern India, who were probably attracted to the south by the reports of the fertility of the rich alluvial plains watered by the Kaveri, the Tamraparni and other peninsular rivers."

of such elements scouts the idea of any extraneous moulding influence.

We proceed next to divide the economic history of India into the chief periods in order that we can make a systematic and comparative study.

CHAPTER IV

DIVISION INTO PERIODS

The economic history of India extending from the earliest times to the end of the Hindu period (Cir. 1200 A. D.) may be divided into the following periods :

(1) The Vedic period. We take this period as extending from the earliest time to the tenth century B. C. For this period, our sources of information are the Vedas, the Brāhmaṇas and some of the Sūtras attached to the Vedas, which though composed later, preserve some old and genuine traditions relating to the Vedic period. During the greater part of this period, agriculture and cattle-rearing were the main occupations of the people. Individual ownership in land was established and villages remined for the most part self sufficient units. The use of various metals including gold and silver came to be known. Gold and Silver currency came into existence though the introduction of metallic currency did not displace barter altogether We find also the beginnings of industry and the developments of various crafts (e.g. working in metals, weaving, carpentry etc.) and it was towards the end of this period that the earliest unions among craftsmen were formed. As we proceed onwards, trade and commercial enterprise are found to be developed, showing the growth of mutual interdependence between the various parts of the country.

Vedic economic life

(2.) The second or the Pre-kauṭilyan period extending from 1000 B. C. to 400 B. C. e. g. from the end of the Vedic period to the rise of the highly centralised monarchy in

Magadha. This period is characterised by some of the greatest religious and social upheavals e. g., the rise of Buddhism, Jainism, and various other religious sects opposed to the Vedic religious system. It was also during this period that there grew up an active and direct intercourse between India and some of the nations of antiquity e. g. the Semites of Western Asia, the Phœnicians, the Hebrews, and the Persians. We find the growth of towns, the development of town-life, and the rise of the guilds in all spheres of national activity. From the point of view of economic history it was an age of guild enterprise and marked the transition from individual enterprise to that of corporate activity, and ultimately paved the way for the rise of state control in economic organisation. The materials for a study of this period are very scanty, our sources of information being some of the Brahmanical Sūtra works (e. g. the Gṛhya, Śrauta and Dharma Sūtras, the Sūtras of Paṇini), and the early religious literature of the Buddhists. The Artha Śastra of Kauṭilya, which describes the social and economic condition of the next period, is of great service to us in as much as from the picture given in it of social and economic life, we can get certain data about the condition of the preceding period.

Town life, foreign trade and guilds

(3). The third or the Imperial Maurya-Kauṭilyan period, which extends from 400 B. C. to the disruption of the Empire and the Imperial system, ending with the overthrow of the Sunga-Kanvas in the first century. We have a good picture of the social and economic condition of this period in the Arthaśastra of Kauṭilya as well as in the edicts of Aśoka corroborated by the evidence of the Greek travellers who visited India during the reign of Chandragupta and his successors. The evidence of portions of the Great Epic which belong to this period is also interesting.

From the Artha śāstra, we know that the Maurya state had a definite economic policy, and it

(a) aimed not only at administrative centralisation but the definite establishment of state control on national economic activity ;

(b) attempted to nationalise certain industries and tried to enrich the state by establishing monopolies in various articles ;

(c) regulated the working of guilds and crafts ; controlled the price of articles, the profits of merchants and the wages of artisans.

State intervention

(d) gave a great encouragement to agriculture by granting loans and advances of money and corn to cultivators, and bestowing privileges and exemptions on them. It encouraged Indian manufacturers and traders by finding out new markets for Indian goods, by encouraging foreign traders to live and settle in India, and by establishing state factories under the supervision of royal officials which served perhaps as models to the public.

(e) established control over the currency by appointing officers to superintend the manufacture of gold and silver coins.

It was during this period that a direct intercourse with the Greco-Roman world and with China was established.

(4) (a) The fourth period again may further be subdivided into two periods e. g. one extending from the beginning of the Christian era to the middle of the seventh century A. D. which witnessed the establishment of the Saracens in the Near East putting an end to the Indo-Greco-Roman trade and the other from that age to the end of the Hindu period. During the first part of this period, the Indians came int o con-

tact with many foreign nations e.g. the Parthians, the Indo-Greeks, the Śakas, the Kuśānas, who came as conquerors, and subsequently settled down in this country, thus adding new elements to the Indian population and probably many new principles in economic life. The importance of this period lies in the fact that it saw the great commercial and maritime activity of Hindu traders of Northern and Southern India, who in their own vessels sailed up to the coast of Persia, Arabia, and Africa in the West, and in the East to the Islands of the Archipelago and China. Moreover, merchants from Northern India carried on an overland caravan trade with the nations of Central and Western Asia. All this together with the industrial development led to the growth of market towns, and stimulated the further growth of the guilds and their banking activity. They developed into ruling organisations and into municipal bodies. The law of joint-stock organisation was developed. The activity of adventurous Indian traders and princes led to the extension of Indian conquests in Further India and to the establishment of Indian colonies in the Islands of Sumatra, Java, Bali, and Borneo, and the settlements on the coast of Africa. At home, we find continued industrial development as proved by the importance of manufactured Indian articles in the Western market, and the prosperity of the merchants and of the guilds. Another important characteristic was the great improvement of Indian coinage after the model of the Greeks and Romans.

(b) From the seventh century to the end of the 12th, there comes a period in which there is hardly any continuity of development. The evils of war and anarchy at home were supplemented by foreign competition abroad, and gradually the Indian trader lost ground. This period thus saw that gradual decay, which culminated in the loss of independence. Indian economic activity dwindled down, maritime

trade passed into other hands, and a bitter struggle for existance began.

With regard to these periods, something more ought to be said in passing. First of all, we cannot venture to have clear out demarcations either by means of historical landmarks or important events. The periods are more or less overlapping as far as some of the main economic phenomena are concerned.

Secondly, the scantiness of material at our disposal often stands in the way of our realising, to the fullest extent, the importance and nature of the economic phenomena, together with their causes and effects.


കേരള സാഹിത്യ
അക്കാദമി

BOOK II
THE VEDIC PERIOD

കേരള സാഹിത്യ
അക്കാദമി



BOOK II

CHAPTER I

I

ARYAN SETTLEMENT AND ADVANCE

WE proceed now with the study of the economic condition of India in the Vedic period. The early Vedic period was an age of "migration and settlement." The Aryan invaders came in large numbers along with their families and moveables, divided into groups, each group under its own chief to whom the allegiance of the tribesmen was due. Of the tribes, the names of five *e.g.*, the Anus, Purus, Druhyus, Yadus and Turvaśas are prominently mentioned in the Ṛg-veda. In addition to these five, we know of some more tribes who rose into prominence later on, *e.g.* the Bharatas, Pancālas, Kurus, Uśīnaras, Matsyas, and many others. As time went on the number of tribes and clans multiplied.

In course of time a large section of the Aryans became settled in the land while others, either hard pressed or in search of more suitable homes, moved forward. Many sections like the Vrātyas, retained for a long time their quasi-nomadic habits and in some passages of the Brāhmaṇas we find mention of chiefs wandering with their villages. In this connection the story of Śaryāta Mānava may be cited—a man who is described in the Śatapatha Br. (IV. 1. 5) as wandering with his 'village.'

GRADUAL EXTENSION OF THE VEDIC ARYANS.—By the time of the Ṛg-veda the Aryans had spread over the whole of the region extending from the Kabul

valley up to the Ganges and the Jumnā. In the list of rivers in the Nadī-stuti hymn, and elsewhere (R. V., X. 75 ; X. 53 & 64) we find the names of the Gangā, the Yamunā, the Sarayu (X. 53), and the Sarasvatī and this goes to show the limit of advance in the East. Of the western tributaries of the Indus we find the names of the Kubhā (mod. Kabul Riv.) the Suvāstu (mod. Swat Riv.) the Krumu (mod. Kurrum) and the Gomati (mod. Gomal) rivers. All this shows a familiarity with the valleys of the Indus and its tributaries.

At present it is difficult to determine how far south beyond the region of the junction of the various Punjab rivers with the Indus, they advanced, and it is yet a disputed point as to whether the sea was known to the Aryans. Of course the word Samudra, meaning ocean in later Sanskrit, occurs many times in the Ṛg-veda but it has been taken to mean a "collection of waters" and following this argument it may mean the broad rivers of the Punjab and not the Sea. This was the view of Vivien De St. Martin. Other scholars like Zimmer have taken the word Samudra to mean in most places the lower course of the Indus which was wide. In many other places the use of the word has been taken to be metaphorical. The evidence of some passages however makes it not improbable that to the Ṛg-vedic Aryans, the word Samudra meant something more than a river ; for in many places the treasures in the sea are spoken of[1]; in others pearls and the gains of maritime trade are referred to.[2] Lastly, in the story of the ship-wrecked Bhujjyu, we hear of his being saved by the hundred-oared galley of the Aśvins,—a vessel too big to be used in a river in those early days.[3] This was

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[1] Rv. I. 47. 6; VII. 6. 7 ; IX. 97. 44.
[2] R. V. I. 48. 3; I. 56. 2; IV. 55. 6.
[3] Vedic Index II. pp. 431-32.

the state of affairs during the time of the composition of the Rg-veda. In the later Samhitās, the meaning 'ocean' is quite clear, as we shall see later on.

Though most familiar with the Punjab, the Aryans did not remain confined to it and they gradually spread over the greater part of the Ganges valley. Some sections even passed beyond the limit reached by the mass of the population. Thus the Ṛg-veda mentions Kīkaṭa which has been identified by some scholars with the country of Magadha (III. 53. 14. kim te kriṇvanti kīkaṭeṣu gāvaḥ). The bulk of the later hymns of the Atharva Veda seems to be familiar with the whole region extending from the land of the Mahā-vṛṣas, Vālhikas, Muja-Vantas, and Gandhāris, to the confines of Aṅga and Magadha in the East, (A. V., V. 22. 14. Gandhāribhyo Mūjavatbhyo'aṅgebhyo Magadhebhyaḥ) as would appear from the 22nd hymn of the Vth book where fever is handed over to the inhabitants of these regions. They seem to have belonged to a different race, termed contemptuously as Dāsas and Śūdras. By the time of the Āraṇyakas and Upaniṣads they had passed beyond the land of the Kuru-Pañcālas and advanced as far as Mithilā, which had become a great centre of Aryan culture and learning. The Aitareya Āraṇyaka has a passage which according to some, contains a reference to Vaṅga in addition to Magadha (II 1. 1. Imāḥ prajāḥ.....Vangā vagādhāścerapādāḥ arkamabhito viviśraḥ.[1])

Later advance.

As regards the south, we hear of the Andhras mentioned in the Aitareya Brāhmaṇa in connection with the attempted sacrifice of Śunaḥśepha, and his subsequent adoption by Viśvāmitra (Aitareya. Br. VII. 17 and 18). The same sage is

[1] The passage of the Aitareya Āraṇyaka cited above goes further than this and has been interpreted as mentioning Vaṅga and even Cera by Mahāmahopādhyāya H. P. Śāstri.

described as having cursed his fifty sons to become unclean like the Andhras and Mutivas, owing to their refusal to regard ex-Śunaḥśepha Devarāta as their elder brother. In the same Brāhmaṇa (VII. 34. 9) we find the Prince Bhīma designated as Vaidarbha e.g. Prince of the Vidarbha country (Bhīmāya Vaidarbhāya—See Bhandarkar, Car. Lec. series 1. Chap. I.) The reference to the Andhras may not be taken to prove any fixed limit of southern extension, since at that time, the Andhras might have been in a nomadic stage, but the reference to Vidarbha, presumably a place name, may give us an idea of the limit of Aryan penetration into the South.

South.

This process of colonisation and settlement continued throughout the whole of the Vedic period, and even after that, streams of settlers continued to advance beyond the line of the farthest outposts of Aryan civilization. This eastern and southern advance beyond the borders of the Vedic homeland, continued, inspite of the terrible anathema of excommunication and loss of social position, pronounced by the law-givers of the Sūtra period, upon those who dared to make journeys to Puṇdra, Vaṅga, Kaliṅga, Surāṣtra, Sindhu and other countries beyond the Aryan pale (see Bodhāyana D. S. I. I. 28. 31.)

II

SOCIAL ORGANISATION

SOCIAL ORGANISATION.—In the earlier period the tribe (Jana) was the highest political union among the Aryans and was probably an agglomeration of several settlements or Viśas and included a fairly large number of villages. The exact relation, social and economic, subsisting between the Jana and the Viś is yet to be found out. As yet it is almost impossible "to state in what exact relation the grāma in Vedic times stood to the Viś" whether it was a mere local division, or whether it was "a unit of blood relationship."[1] The question is still further complicated by the existence of an older social division—e. g., that of the gotra, which later on became the basic principle in the formation of exogamous groups. By the period of the composition of the Brāhmaṇas, the Jana and the Gotra became the real elements of division of the community, while the Viś practically disappeared. (See Vedic Index on Viś and Jana).

Caste in the Vedas.

Whatever might have been the original state of things the social fabric was wholly modified by the rise of the caste system, the germs of which can be unmistakably traced in the hymns of the Ṛg-veda, though we have very little of an exposition of the theory of the division of castes in that book. The only explanation of the theory of caste is found in Ṛg. X. 90. e. g. the Puruṣa sūkta, where the Ṛṣi Nārāyaṇa, describes a system which seems to have already existed in his time. Beyond this we have no history—no tradition—about the origin of caste, excepting a late Brahminical tradition in the Viṣṇu

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[1] See Vedic Index, on Viś and Grāma.

Purāṇa and in the Harivaṃśa, which ascribes the division into castes, to Śaunaka, the descendant of Gṛtsamada, the traditional revealer of the second Maṇḍala of the Ṛg-veda.[1]

The majority of European scholars regard the Puruṣa sūkta as a later interpolation. They seem to entertain the view that the Ṛg-veda knew very little of caste divisions and they try to explain its rise as being due to the eastern migration of the Vedic Aryans and the consequent rise of complexities in social life. But when we proceed historically we find unmistakable evidences to the contrary, and a careful study of the hymns convinces us that social divisions existed even during the period in which the oldest parts of the Ṛg-veda were composed. Thus in some of the hymns, which are admitted to belong to the oldest portions of the Ṛg-veda, we find in more than one place, the mention of a threefold or fourfold division of the community e.g. Brahma, Kṣatra, and Viś (See R. V., VIII. 35. 16-18 and I. 113. 6). Not to speak of this mere reference to a social division we have separate mention of the three classes. Thus the word Brāhmaṇa meaning a member of the priestly or the sacerdotal order occurs in more than one place. (I. 164. 45; VI. 75. 10; VII. 103. 1, 7, 8; X. 16. 6; X. 71. 8 and 9; X. 88. 19; X. 90-12; X. 97, 22; X. 109. 4; etc.) Similarly we have evidences which clearly point to the separate existence of the fighting class. Their formation into a separate section of the community is proved by the repeated mention of the words kṣatra (R. V. I. 24. 11; 136-1-3; IV. 17. 1; V. 62 6;) kṣatriya (R. V. IV. 12. 3; IV. 42. 1; V. 69. 1; VII. 64. 2; VIII. 25. 8), rājanya, and such other terms. The mass of the common agricultural people seem to have formed a separate division and was known by the term Viś

Brāhmaṇa and Kṣatriya.

[1] Viṣṇu P.—IV. 8. 1 and Harivaṃśa ch. XXIX.

or as we have it later on, the Vaiśyas. While the servile classes, whether descended from degraded Aryans or from conquered enemies, formed a body to which the name Śūdra was given in the Ṛg-veda.

The Vedic evidence goes further than this, and a study of hymns admittedly belonging to the older portion convinces us that even in those days, we had, instead of a casteless society, a complicated social organisation with a highly developed priesthood. And further we meet with evidences which conclusively prove not only the existence of the three above mentioned classes, but clearly point to a tendency of subdivision even among these various groups. To take the priesthood first: even in the days of the oldest hymns of the Ṛg-veda we find evidence of the development of the sacrificial art, requiring the use and presence of no less than six different priests. Thus in the Ṛg-veda I. 162 (the Aśvamedha hymn) we find mention of the Hota, Adhyaryu, Avayaj, Agnīmindha, Gṛāvagrābha and Saṃstar. Of these, two indeed go to the Iranian Period e.g. the Hota (Zd. Zota) and the Adhyaryu (Rathwi). In another old Rik we find mention of Somina Brāhmaṇa and of the Adhyaryu (see R. V., VII. 103 Brāhmaṇāsaḥ Somino....Adhyaryarvaḥ etc.) In another place we find mention of the Gāyatrinaḥ, Arkinaḥ and Brāhmaṇā (i.e. the udgatṛ priests). All these point to an early separation in the body of the priestly class itself and the formation of separate priestly orders (See I. 10. 1.). In course of time the priestly offices multiplied and became hereditary and each family became the repository of certain formulæ or hymns and gradually the priests formed a definite caste by themselves as is proved by the evidence of the Brāhmaṇas and the Upaniṣads.

Among the kṣatriyas, who asserted their predominance over the common people and became the ruling and fighting caste, the tribe remained the basis of division. In the case of

the mass of the people originally known as the Viśaḥ, and later on identified with the Vaiśyas e. g., agriculturists and traders—they were delegated to a lower social position. They too show a tendency to subdivide. In course of time the hereditary following of occupations became the cause of the rise of sub-sections among them and these became distinguished by the importance of their occupation. The Vaiśyas though they became subordinate to the other two castes (anyasya valikṛt—anyasyādya—etc.) were even then regarded as vitally important to the community, and this would appear from the following passage of the Aitareya Brahmaṇa (I. 9.) :

"They say the gods should be provided with Vaiśyas (Viśas). For if the gods are provided with them men will subsequently obtain them also. If all Vaiśyas are in readiness then the sacrifice is prepared." With the ever-increasing influence of the caste theory, certain gods too came to be regarded as Vaiśyas and according to the Vājasaneyi theory of creation, Gaṇeśa, the Vasus, the Rudras, the Ādityas, the Viśve-devāḥ, and the Maruts, were regarded as belonging to this caste.

So much for the early history of the caste system. Its earliest elaboration is, as we have already said, in the Puruṣa-Sūkta, where apparently the composer Nārāyaṇa seems to describe a state of affairs already existing. As time went on this theory of caste became general and was accepted on all hands and we find it obtaining a place in almost all the Samhitās. It is elaborated in the Atharva Veda, and it occurs in the Puruṣavidhān Brāhmaṇa.

Henceforth references to the four divisions are common. In the Atharva Veda we find reference to the four divisions of Rājanya, Vaiśya, Sūdra, and Ārya. (Paippalāda III. 5. 7). The Vājasaneyi Samhitā too speaks of the divisions into Brāhmaṇa Vaiśya and Śūdra (Vaj. San. XXI. 11). In one

place we find the four enumerated as Priest, Warrior, Śūdra and Ārya (XXVI. 2.) though elsewhere Ārya is contrasted with Dāsa. In other places we have accounts of the creation of Ārya, Rājanya and Śūdra. Many such theories originated and we find them in the Saṃhitās and Brāhmaṇas.

Caste and profession.

Thus in the Satap. Br. (II. 1. 4) we find an account of the creation of the castes with the formulæ Bhuḥ Bhubaḥ and Svaḥ—The Taitt Br. gives a similar story of the origin of the three castes.

Side by side arose theories which aimed at the definition of the respective duties of the caste. We find, moreover, peculiar formulæ of invocation of the members of the various castes with their special duties, rights and special occupations. These we find fully elaborated in the Dharmasūtras.

Caste thus brought on a change in socio-economic life. It divided society on the basis of division of duties. As we proceed onwards its influence is more and more felt, though the castes were not as yet socially exclusive endogamous groups. Hypergamy continued to exist and the status of the father determined that of the son. Gradually, however, the mutual exclusiveness of castes increased, and towards the close of the Hindu period mixed marriages ceased altogether. The influence of heredity on the selection of occupation however worked strongly upon the social structure and tended towards the formation of sub-castes and guilds.

The principle of division of labour continued to introduce more subdivisions among the mass of the agriculturist and working population. Thus with the advancement of the knowledge of certain crafts, the men engaged in these were separated from the mass of the population. Of these crafts-people, the rathakāra, the sūta, and the takṣan, were the first to stand apart from the mass of the people. In the Ṛg-veda (X. 97. 23) we have a reference to a class of people who are called upa-sti (adhaḥ-sāyi—Sāyaṇa's—Com.) The meaning

of this word as well of the word sti is not clear. The Atharva Vedic evidence however shows that the upa-stis included the rathakāra, the takṣan, and the suta, in addition to the grāmaṇī. (A. V. III. 5-6 and 7). The upa-stis have been taken to be "royal dependents" by some scholars, but Macdonell and Keith pointing out the difficulty in finding out the real meaning sum up by saying that "it is therefore reasonable to assume that they were the clients proper of the king, not servile, but attached in a special relation to him, as opposed to the ordinary population' (Ved. Ind. I. 96).

Village.

As we pass on to discuss the distribution of the people, we find that the village was the smallest social and political unit and the social life of those days was based on it. In order to proceed with our study we must begin with an enquiry into the nature of the Vedic village.

III

THE VEDIC VILLAGE OR THE GRĀMA

The Vedic village was a settlement in the midst of a well-watered plain or presumably on the side of a river, affording facilities for agriculture or for cattle rearing. Various types of village existed, each type conforming to the peculiar characteristics of the locality, though we have but little details. We have unfortunately no description of a Vedic village, but from scattered references we may form an idea as to its outward appearance and arrangements. In general the village consisted of

(1) the central or the inhabited nucleus which contained the houses of the inhabitants and the land for cultivation (arable land). In this central portion of the village were also situated, probably the quarters of the Grāmanī or the village headman, the chief's domains and the meeting-place of the village assembly.

(2) Round the first was the belt of pasture land where the cattle of the village were allowed to graze. According to Roth the Gavya or the Gavyūti was the pasture land (see R. V., I. 25. 16, III. 62. 16 ; V. 66. 3 etc.).

(3) Beyond the pasture land was the Araṇya or uncultivated land beyond the village, with which the grāma is contrasted in Vedic literature. The Araṇya was not necessarily the forest. In some places the Araṇya is contrasted with the Amā (R. V. VI. 24. 10) and the Kṛṣi (A. V. II 4. 5) home and plough lands respectively. It was regarded as a sort of no man's land—the home of the hermits and

of out-laws. Probably it was also frequented by the villagers in conection with hunting and sporting.

The outward arrangement of the Vedic village appears to have been similar to the Teutonic mark in its later stage of development during the Anglo-Saxon period or to similar village-types. But we must bear in mind that there were some essential differences between the Vedic village and the early mark as described by the historians. To take the case of the Teutonic mark, it had changed its original character with the migration and settlement of the conquering Anglo-Saxons in Britain. In the days of Tacitus, the forest and the uncultivated plains were regarded as common property. The arable land, which was under the occupation of the community, was indeed divided into plots, but these allotments changed every year, and were redistributed among the the members of the community, according to the social importance or the requirements of the families. This goes to prove the absence of private ownership in the cultivated land. In the case of the homesteads however the evidence of Tacitus goes to prove without doubt, the existence of private ownership. The history of the Anglo-Saxon period shows a succession of further changes During the earlier part of that period, private ownership of the homestead remained as before, while excepting the forest and waste, the meadow and the arable land, remained subject to the system of annual allotments. With the system of rotation of crops, two sets of arable land came into existence. This system of communal ownership and periodical allotments did not however last long. It failed to take root or last long. Private ownership became the general rule, and land was appropriated by families and held in severalty.

The Teutonic system therefore shows the preponderating influence of a system of communal ownership. But when we come to the Vedic village, we find quite a

different state of affairs. To understand the points of difference, in this connection we must classify the land of the village, and discuss the question of communal ownership of land, existing in the Vedic village.

IV

THE LAND OF THE VILLAGE.

An enquiry into the nature of the Vedic village-community and the question as to whether the land of the village was owned by the community in general, has already engaged the attention of Vedic scholars. To answer this question a careful investigation is necessary and we must take the three kinds of land e.g. homestead land, the arable and the pasture lands separately, and discuss the question of ownership with regard to each.

(I) THE HOMESTEAD.—In regard to this we find that the earliest available Vedic evidence supports the view that houses were owned in severalty Not to speak of scattered references to private ownership, we have in two hymns (R. V, VIII. 54 and 55) the description of a state of affairs which could not have existed without private property in houses being the accepted principle. In these two hymns the owner of each household offers prayers to "Vāstospati" for immunity, security, and prosperity. Moreover, the hound of Indra (Saramā's son) is spoken of as protecting it. He barks at the thief and the robber, and his teeth gleam like the lance's point. Further-more in another place (R. V, X. 34. 10 and 11) an impoverished gambler is made to take shelter in another's house. The sight of other's prosperity and their fine dwelling houses torments him. This proves conclusively that houses were owned in severalty, and that the owners had the right of sale or gift. The Atharva-Vedic evidence too

confirms the same view. In all descriptions of houses, they appear to have been owned by individuals. As we proceed onward we have the evidence of the Chāndogya upanisad, (VII. 24. 2.) where fields and houses are cited as instances of private wealth. This together with other evidences from Vedic literature goes to prove the establishment of private ownership in houses in very early times.

(II) THE ARABLE LAND.—In connection with the ownership of arable land the following facts in the Ṛg-veda are to be noted : e.g.

(*a*) In Ṛg-veda I. 110. 5 we find reference to the measurement of fields with a rod. There the Ṛbhus are spoken of as measuring "as a man measures fields with a staff or a rod.

(*b*) We meet with epithets like Kṣetra-pati, Kṣetra-sā Urvarā-pati, and Urvarā-sā, meaning owners or lords of fields. (Vedic Index. I. pp. 99).

(*c*) Moreover in the Ṛg-veda we find the story of Apālā, the daughter of Atri, who prayed to Indra for the fertility and increase of production in his father's field (R. V. VIII. 91. 5 and 6 —Imāni trīni viṣṭapā tāni Indra vi rohaya ¦ Śirastatasyorvarāmādidaṃ ma upodare ‖)

All these evidences may be taken to prove that even by the time of the oldest Ṛg-veda hymns, not to speak of later times, individual ownership in the plough-land was fully established. For without private ownership we cannot expect land to be measured or fields spoken of, as objects of private possession. Schrader takes into consideration the measurement of fields already mentioned and in his opinion this points to the existence of private ownership. Baden Powell, one of the greatest authorities on Indian land-tenure, discusses the same question and says that "there is not the

least suggestion that the Vedic village was a group of land-holdings held in common or in any other way. But the idea of fields owned by some one, seems familiar from the allusion found to measuring the field with a staff and reed and to there being bare strips of balks (Khilya) between two fields." Two other authorities, Macdonell and Keith, in their Vedic Index (see grāma) have discussed the question of ownership of land and after careful investigation, in the course of which they have cited instances of land being measured and spoken of as belonging to individuals, they have come to the conclusion that private property in land was fully established. As regards communal ownership they express the opinion that there "is nothing to show that the community as such owned or held land." Their conclusion is decidedly in favour of individual tenure, "this in effect presumably meaning tenure by a family or an individual." The evidence of later saṃhitās like the Taittirīya. Sam. (see II. 2. 1) is more clear. In one passage we are told that a man who has a dispute about land with his neighbour must make offerings to Indra and Agni on eleven potsherds (note I. Keith-Black yajus. trans.)

(III) THE PASTURE LAND :—As to the pasture land Vedic evidence as yet collected is too meagre to enable us to form any opinion and there must exist room for differences. Macdonell and Keith deny the existence of any trace of communal property in the sense of ownership by a community of any sort (V. I. p. 100). This indeed is beyond dispute as regards the plough land but at the same time there is nothing to prove private ownership in the grazing land. On the other hand we have before us the fact that nothing is spoken about the pasture in terms which may suggest private control. The herd of the village was entrusted to a common herdsman (R. V. X. 19. 3 and 4), and this goes to suggest that the pasture was enjoyed in common,

The evidence of the later legal literature of the Hindus *e. g.* of the Dharma-sūtras and of the Artha-śāstra lends support to the same view. (Kauṭilya p 172 1st Ed. text). To the last day of the Hindu village system and even up to the establishment of the English in India the village pasture was enjoyed by the inhabitants in common, and was never subject to individual ownership. Moreover in those days when villages were situated in the midst of the vast expanse of unoccupied land the question of defining ownership in the pasture did not arise at all.

Such was the state of affairs. Fields belonging to individuals remained open. In the Vedic literature we find very little about permanent enclosures or hedges between fields. According to some there were bare strips of balks (Khilya) between two fields. But probably fields remained open with occasional barriers set up in times of harvest.

The establishment of individual ownership was most probably due to the Aryan migration and settlement In Teutonic and Anglo-Saxon society we find a similar change. Thus according to Schrader (Prehistoric Antiquities P. 289) private property in land was unknown among the Indo-Europeans before the migrations. Later on with settlement in Western Europe it became established among them. By the time of Tacitus however there arose communal cultivation and periodic allotments of land according to the dignity of the members of the community. With the establishment of the Saxons, a branch of these Teutons in England, private ownership of land was fully completed. In the case of Vedic Aryans we may infer that in the course of migration and settlement, they passed through successive stages of development and by the time of the Ṛig-veda private property in land was fully established.

Private ownership.

V

NATURE OF PRIVATE OWNERSHIP

We come next to discuss the nature of private ownership *e. g.* whether the land belonged to the head of the family, or to the members of joint families in common. As yet we have very little of precise information as to the legal relationship subsisting between the head of the family and the other members of the same. From some passages of the Atharva-Veda we know something about the existence of joint families, members of which had an equal interest in the family property. Not only do we find a repeated mention of the words Sajāta and Samāna meaning clansmen or men of the same family but in one hymn (A. V. III. 30.), we find prayers to the gods for unity in the family. There the expressions "let what ye drink, your share of food be common" and "united obeying one sole leader—one minded be you all"

Its nature.

[Mā bhrātā bhrātaram dvikṣanmā svasāramuta svasā. ॥
... ...
Samānī pūpā saha bonnabhāgaḥ samāne yoktre saha
bo yunajmi. ॥ ... ...
Sadhrīcīnān baḥ saṃmanasaskṛnomi eka Śnusṭhīntsam
vananena saṛvān. ॥
Devā ivāmṛtam rakṣamānaḥ sāyaṃpraṭaḥ saumanaso
bo astu.]

go to prove large joint families, in which all the members had their shares in the common property.

On the other hand, we have conflicting evidence furnished by some other passages. These prove the almost autocratic authority of the father or the head of the family over the

other members. According to the evidence of such passages the father who often exercised tyrannical authority over his children, could disinherit them, sell them to slavery or inflict any punishment he liked. As an instance of such paternal authority Zimmer cited the story of Ṛjr śva, who was blinded by his father for having destroyed the sheep and cattle of his subjects. The story of Viśvāmitra and his fifty ṣons who were outcasted by him and expelled, as also of the sale of Śunahśepha who was sold by his father Ajīgarta in lieu of 100 cows, all occurring in the Aitareya Brāhmaṇa. (VII. 15 and VII. 18) are examples which point to the autocratic authority of the head of the family.

It is however doubtful as to whether these are instances which give us the real state of affairs or were arbitrary exercises of authority. On the contrary there is evidence to prove that it was an accepted principle that even during a father's life-time the sons could divide property, and in that case the division was equal. This would appear from the story of Nābhanediṣṭa, son of Manu. He demanded his share, when his other brothers had divided their patrimony. His claim was accepted in principle, though many obstacles intervened in his regaining his lawful share. The story shows undoubtedly that even during the lifetime of the father, sons were regarded as having a vested interest in property, from which they could not be excluded at will. (Ait. Br. V. 14). The Taittirīya Saṃhitā (II. 6. 1) indeed speaks of a father making common property with a son.

Joint families.

LAND TRANSFER : In some of the Brāhmaṇas we find a decided feeling against land transfer (Śat. Br. XIII.) though we have passages which point to the existence of the practice of plots of land being made over to others as gift, specially to Brahmins who officiated in sacrifices. (Śat. Br. XIII. 6. 2. 18, XIII. 7. 1. 13 and 15). From another

passage of the same book which deals with the Gārhapatya hearth, we know that the Kṣatriya clansmen apportioned land given to them by a (Kṣatriya) king, with the mutual consent of all (VII. 1. 1. 4). In the case of houses they could be sold or given away as we know from the story of the gambler in the Ṛg-veda who had lost every thing including his dwelling-house in course of gambling. Later on when we come to the Chāndogya Upaniṣat we find fields and houses regarded as object are of private ownership (kshetrani and āyatanāni VII. 24. 2.), and easily transferable.

The next important point for us is to discuss the relation between the ordinary cultivator, and the king in regard to the land which the former tilled.—*i. e.* whether the ownership of the land resided ultimately in the king or whether the cultivator was a free proprietor.

VI

ROYAL RIGHTS IN LAND

KING'S OWNERSHIP OF LAND :—From the evidence at our disposal, it is very difficult to decide as to whether the king was regarded as the owner of the land. Some scholars have leaned towards the theory of royal ownership of the soil. But as a matter of fact they have hardly relied upon clear evidence, and probably they have been misguided by later Western analogies. As yet there is nothing to prove that in the Vedic period the king was ever regarded as the owner of the state territory. The Ṛg vedic evidence shows that as guardian of his people he could claim his tribute only (Vali—See R. V. X. 173) from his subjects. Nothing more is said of his being the owner of the soil. Later on in the Atharva Veda we find prayers for the grant of a share in villages to the king (A.V. IV.22.2) and this shows that he was not regarded as the sole owner of the villages, but that the people granted him some land for the maintenance of his authority and dignity.

King's ownership.

The evidence of this hymn may be relied on and there could have been hardly any room for this prayer if he was already the master of the soil.

The truth seems to be that during that remote period when there was plenty of land for settlement and cultivation the man who first cleared it and tilled it had every right to be regarded as its owner, and there was hardly any scope for the elaboration of fine legal theories.

Another important topic to be discussed in connection with the land is, as to whether a landed aristocracy *e.g.* men who stood as intermediatories between the king and the

common cultivator existed. As regards this we have nothing in the Ṛg.-veda which proves the existence of such an aristocracy. But when we come to the later Saṃhitas we have some distinct evidences, which throw light upon it. Thus in the Taitirīya Saṃhita we repeatedly meet with the word Grāmakāma and the word Grāmin (II. 1. 3. 2.) *i. e.* one desiring the ownership of a village) in connection with special sacrifices for the attainment of specific desires (see Tait. Sam. II. 2.8.1 and 11. 1.). The significance of these two passages, is that, they suggest that men could attain the lordship of villages either through royal favour or through the acceptance of the villagers. In the first case it is difficult to decide as to what real rights the king bestowed on this overlord of the village. The point does not seem to be quite clear. The authors of the Index believe that what the king granted was his regaliæ or sovereign right of levying contribution and probably nothing more. In the other case the man attained nothing more than a social pre-eminence, in as much as we know from the passages in which the word occurs that it required the sanction of sajātas and samānas, and this shows that no real rights were parted with, by the sajatas and were vested in him. When we come to later literature we find instances of gifts of villages by kings. The Chandogya. Up. contains the gift of a village by king Jānasruti to Raikka (Chh. Up. IV. 2.4). In subsquent periods such gifts of villages were common and this contributed to the growth of the Mahaśālas whom we find in the Upaniṣads and in early Buddhist literature. The evidence of the Buddhist literature shows—as we shall see later on that the Mahāsalas enjoyed the revenue of villages, and may be regarded as occupying the position of land-lords.

Ownership of villages.

As to the King's revenue we find the earliest reference to it in the Atharva Veda (IV. 22.2) where Indra is

invoked to give him a share in villages, kine and horses, and to leave his enemy without a portion" (Enaṃ bhaja grāme aśve ṣu goṣu niṣṭhaṃ bhaja yo amitro asya. A. V. IV. 4 22-2). Perhaps in those days the royal revenue was raised from voluntary contributions. As to any fixed share of the produce being paid to the king as tribute, the evidence of a passage of the Atharva Veda (III. 29·1) is significant. In that hymn in which immunity from taxation in the other world is prayed for, we hear of the kings sitting by the side of Yama, (Yad rājāno bibhajanta iṣṭapurttasya ṣoḍaśaṃ yamasyāmī sabhāsadaḥ. A. V. III. 29.1.) dividing among them the sixteenth part of hopes fulfilled in this world. This may point to the royal share being assessed to a sixteenth part of the produce in those days.

Revenue.

IDEA OF VILLAGE CORPORATION.

Most of the villages were founded by settlers under some leader. No more details are definitely known of the Vedic village, except that there was some place of common gathering where the people assembled for dice-play, amusement or for transacting business. In times of war the people of the village assembled under their leaders and fought for the safety of their hearth and home. This is proved by the word Saṅgrama, occuring in Vedic literature. The word primarily meant, an assembly of the village folk but later on it came to mean a war gathering, and this sense has survived in classical sanskrit.

IDEA OF VILLAGE CORPORATION :—All these facts cited above go to prove the rise and growth of an idea of village corporation. For though private ownership was established in the homestead and the arable land, the pasture, and beyond that, the Araṇya remained subject to a sort of communal ownership. Again (even if we exclude the discussion of the question of consanguinity) the village folk regarded themselves as a united body, as opposed to outsiders, and this is proved by the tendency against land-transfers, the operation of which existed even to the days of the Artha-sastra, where we find the existence of a right of pre-emption residing in a co-villager in the matter of sale of a house or a plot of land in the village.

This was the state of things in the Vedic village. The name vlllage-community may be applied to it, if that may be taken to mean a body of cultivators located in one parti-

cular area "bound togather by certain customs, and with certain interests in common, possessing within the village the means of local government and of satisfying the wants of life without much reference to neighbouring villages" (see Baden Powell p. 9).

The administrative machinery of the village goes to support the above corporate character. At the head of the village was the Grāmanī who was most probably an elected official. In the Grāmyavādin who was a village judge, we find another instance of the corporate character of the village. (See Taitt. Sam. II. 3.1.3; Kāt. Sam. XI. 4 and Maitrā. Sam. II. 2.1) The village officials transacted the affairs of the village. They had judicial and magisterial powers and these subsisted up to the last days of Hindu independence.

Villages thus became the basis of social life and gradually as the Aryan settlement advanced they became more and more numerous. They were situated all over the country in the midst of the fertile plain. But a large part of the country still remained forest. The Aitareya and Śatapatha Brāhmaṇas mention Dīrgharaṇyas (Ait Br. III. 44, VI. 23, Śat Br. XIII. 3. 7. 10) but these were gradually cleared. According to the Aitareya Br. villages became numerous in the west, while there were forests in the East (III. 44). The Jaiminīya upaniṣad Brāhmaṇa mentions Mahāgrāmas, but gives us no details.

VIII

GROWTH OF TOWNS

Villages were connected by roads which were generally insecure and infested by robbers and outlaws. We have no details showing the great roads which connected villages of distant localities though only the word Mahāpatha occurs in later vedic literature. Most of the villages were probably open though we hear of pur or forts mentioned in Vedic literature.

Most probably these forts were built inside villages, and were made of stone and offered security to the people in case of ravages by enemies. We have occasional references to forts of iron or those having hundred walls but we cannot form an exact idea as to their construction, nature and size.

TOWNS :—Towns most probably did not exist in the early Vedic period. Pischel and Geldner thought that there were towns with wooden walls and ditches. Kaegi thinks that there were no towns in the Ṛg-vedic period. We have no names of Vedic towns, though the word Nagara meaning towns occurs later on. One passage of the Śukla Yajurveda seems to make some doubtful reference to a town named Kampila (according to the Indian commentator—Kampilya ? See Vāj. Sam. XXXIII. 18).

But when we come to the Brāhmaṇa literature we find the word Nagara frequently used as well as the epithet Nagarin. The Taittirīya Brāhmaṇa describes Janaśruteya as a Nagarin. In the same literature we have epithets derived from place names, which later on became big towns. For instance we have the epithets Kauśamveya, Kauśalya, Vaidarbha and all these may be taken to mean the gradual growth of big centres of trade and culture which later on grew into towns.

CHAPTER II

I

DEVELOPMENT OF AGRICULTURE

Agriculture was the principal occupation in the villages. Its adoption took place undoubtedly at a very early age, though we have nothing, which can tell us as to the period when it was adopted. Historical evidence goes to prove that among pastoral peoples or even semi-savages, agriculture in some form or other has been practised. In regard to the Indo-Europeans, Dr. Schrader who tried to estimate their agricultural development with the aid of Philology, came to the conclusion that these peoples had a considerable amount of agricultural knowledge ; not only did they cultivate millets, oats, flax, and beans but had devised a rude wooden plough. Coming to the Indo-Iranian period when the Vedic Aryans are supposed to have lived along with the Iranians, we find that the Indo-Iranian agriculture was considerably developed and this is proved by a careful comparison of a number of Vedic and Avesta words relating to agriculture. The evidence of the Vendidad shows indeed, the importance of sheep and cattle-rearing among the old Persians as would appear from the repeated references to flocks and herds, but we have direct reference to agriculture also (Vendidad. Fas. III. 23 and 24 ; and also Vendidad XIV. 10). Of the two passages cited the first speaks in terms of praise of those "who cultivate most corn-grass and fruit," while the other speaks of the "gift of a plough with share, and yoke and oxen, whip, a

mortar of stone, and a hand-mill for grinding corn." Zimmer held the same view and Keith and Macdonell are of the same opinion. They point out the similarity existing between Sanskrit Yavaṃ kṛs and Zend Yayo karesh, and between Sk. Sasya and Zd. Hahya (Vedic Index, kṛṣi I. p.181.)

From the evidence of the Vedic hymns we may safely draw the conclusion that by the time even of the earliest hymns, the Aryan masses had settled down to a peaceful agricultural life though some sections like the Vrātyas retained their wandering nomadic habits for a long time (Pañca. V. Br h. XVIII).

In regard to this the Ṛg-Vedic evidence is conclusive. Thus the words Kṛṣṭi and Carṣaṇi (used in the plural) are applied to people in general (R. V, 1. 52, 11 ; I. 100 10 ; I. 160. 5 ; I. 189. 3 ; III. 49. 1 ; IV. 21. 2, etc. and A.V, XII. 1, 3 and 4. For carṣaṇi R V, 1. 86. 5 ; III. 43. 2 ; IV. 7. 4 ; V. 23. 1 ; etc.) In other places too the words Pañca kṛṣṭayaḥ, Carsaṇayaḥ, are applied to denote the great tribes. (See R. V, II. 2. 10 ; III. 53. 16 ; IV. 38. 10 ; X. 60. 4 ; etc : For Carṣaṇayaḥ V. 86.2 ; VII. 15.2 ; IX. 101. 9 ; etc.) The use of the root kṛṣ is found in many places and the word kṛṣi occurs in innumerable places of the Atharva Veda and the Taitt. Samhitā.

Chief occupation.

That agriculture had become the chief occupation of the people is further proved by innumerable prayers for rain (R. V, VII. 101.3 ; X. 105, 1 ; X. 50, 3 ; IV. 57. 1 ;) or those addressed to rivers to increase the fertility of the soil and to further the growth of grains and plants. These speak in clear terms of the needs of an agricultural population and show how much they depended on it. Some more light is thrown on this point by a passage of the tenth Maṇḍala (X. 34. 13) in which a man advises the ruined gambler, to give up gambling and to engage in agriculture which is sure to bring him wife, wealth and cattle.

Apart from scattered references to agricultural operations the Ṛg-veda contains some detailed description of agricultural methods in the Kṛṣi Ṛk (R. V, IV. 57). In that hymn attributed to Bāmadeva, and addressed to Kṣetrapati, Sunāśīra, and Sītā, prayers are offered to these deities, so that, there might be timely rain and that the fertility of the soil might be increased. We have next, a description of the ploughing of the field by means of the plough drawn by oxen, and driven with goads. Lastly Indra is invoked to help in ploughing and Puṣan is asked to drive the plough. More information is furnished by scattered words and passages. Thus one passage (X. 23). speaks of the clearing of forests, two others (X. 94 ; X. 101. 3 and 4) speak of the sowing of seeds after ploughing.

The ripe grain was cut with the sickle (Dātra, Sṛṇi). The harvest (Yava) was collected in bundles, and taken home in batches (X. 131. 2). The bundles (Parṣa) are then described as being beaten or trampled upon, on the floor of the granary or Khala (X. 48. 7). The next operation e.g. the separation of the grain from the straw was done with the help of a sieve or a winnowing fan. (R. V. X. 94. 13). For measuring the grain a wooden vessel Ūrdara was used (R.V, II. 14. 11).

Agricultural operations.

Kaegi sums up the whole operation by saying that "before sowing, the ground was worked with plough and harrow, mattock and hoe" (Ṛg-Veda. p. 13) We have moreover references to prove that occasionally the water of wells or of canals was used in watering fields. (Vedic Index I. 181 & 2).

The Ṛg-veda gives us no description of the plough except that it was drawn by oxen (X. 106). According to a tradition the twin gods (the Aśvins) were the first to teach Manu the use of the plough and the cultivation of Yava. (R. V, I. 117. 21.) In that passage the word, Manuṣāya according to Sāyana refers to the Great Manu. (see also VIII. 22 6).

Nothing more is known of agricultural operations from the Ṛg-veda. It is only when we come to the later Samhitas that we have some more details about agricultural operations. The Atharva Veda contains the tradition that Pṛthī-Vainya was the inventor of ploughing and agriculture (A.V, VIII. 10.24). In the same book as elsewhere we hear of the employment of a larger number of oxen to draw the plough - e.g. from six to twelve (A.V, VI. 91. 1), indicating either the practice of deeper ploughing, or the hardness of the soil. It mentions also the use of natural manure (III. 14. 3 and XIX. 31. 3). The seasons for agriculture are mentioned in the hymns of the Taittirīya Samhitā, bearing on agriculture and ploughing. (See IV. 2. and VII. 2. 10). According to that book barley "ripened in summer, being sown in winter, rice ripened in autumn being sown in the rains, while beans and sesamum ripened in winter and the cool season." The Śatap. Br. mentions only the operation of ploughing, sowing, reaping, and threshing (I. 6. 1. 3). The Tait. Sam. further mentions that there were two harvests a year (V. 1.7.3 —"May they cook he says twice, therefore twice in the year the corn ripened,") and according to the Kauṣītaki Br., the winter crop was ripe by the month of Caitra (XIX. 3). The mention of a double crop shows a distinct advance in agriculture, which may be attributed partly to the larger use of manure, and partly to the knowledge of the cultivation of a large varietly of grains and plants which grew in different parts of the year. Whether this rotation of crops made the people entirely dispense with the practice of keeping fallows is a question yet to be decided. In the absence of evidence to the contray we may presume that the custom of keeping fallows had gone out of practice. The cultivation of two varieties of rice e.g. the Āśu and the Maha-vrīhi points to the same.

Double crop.

The agriculturist had to take great precautions against

injury to his crops. In addition to drought and excess of rain many other hinderances to agriculture existed and the agriculturist suffered owing to varieties of these ; Occasionally innundations swept away the seeds ; lightening often injured crops and plants ; moles, rats, various birds and insects destroyed the seeds or injured the sprouts. The Ṛg-veda (R. V, X. 68.1.) speaks of the driving away of birds from fields. In the Atharva Veda we find spells for destroying the Jabhya and Tarda, (A.V, VI. 50. 142. etc.) for counteracting droughts, lightening, and inundations (A. V, VII. 18).

കേരള സാഹിത്യ അക്കാദമി

II

CULTIVATED PLANTS

Cultivated plants.

As regards the cultivated grains of the earliest period the Ṛg-veda mentions only the Yava and the Dhāna, (Vedic Index. I. 398) or Dhānya (R. V. Vl. 3 & 4). The meaning of the word Yava according to some European scholars (Vedic Index. II. 187) is not quite clear. They hold that that word perhaps meant any kind of grain and not merely barley. But this meaning appears more probable, in as much as barley is one of the grains to be cultivated earliest and it suits all climates. According to Indian commentaries Yava means barley only. The meaning of Dhāna is similarly obscure. Scholars take this word to mean grain in general, though in later literature it means rice. The question of rice cultivation in the Ṛg-veda is disputed. European scholars interpret Dhāna and Dhānya as meaning grain in general and not rice, which according to them could not have been known, since rice was originally indigenous to S. E. India. In the Atharva Veda Vrīhi is repeatedly mentioned (VI. 140. 2 ; VIII. 7. 20 ; IX. 6. 14 ;) as also the word Taṇḍula (X. 9 26 etc.). The same Veda (III. 14.5.) speaks of Śāriśāka, which Weber took to be nothing but Śāli. The Taitt. Sam. (I. 8. 10. 1) as well as the other Saṃhitās distinguish between the dark, swift growing Āśu, and the Mahā-vrīhi. The Śatapatha Br. mentions the swift growing Plāśuka (V. 3. 3. 2). Speaking generally, in the Atharva Veda or other later Samhitās we find a gradual development of agriculture and multiplication of cultivated plants. Thus in the Atharva

Veda we find not only barley (Yava) and rice (Vrīhi) repeatedly mentioned but also sesamum (A.V, XII. 2. 54 ; XVIII. 3.6 9, XVII. 4) beans (M ṣa) sugarcane (A.V. XII. 2) millets, Syamaka and some other varieties of rice which came to be extensively used and became the staple food in a large locality (A.V,IV, 35 ; X.3 ; XII.3 ; XII. 4 also A.V, VII. 10.24 ; R.V, VII. 19). The innumerable harvest hymns and prayers for rain (AV, VII. 18 & 39, etc) and agricultural prosperity, (A.V, VI. 142) show that at the timc of the Atharva Veda agriculture had extended and had become the most important occupation of the people. In the same Veda, in addition to prayers for rain and good weather, we find mention of the weather-foreteller or—the Śaka-dhūma (A. V, VI. 128. 1-4) and a distinct mention of canal digging.

The Yajur-Veda Samhitās and Brāhmaṇas give us more information on cultivated plants. Thus we find that the white Yajus mentions wheat (Godhumāḥ) rice (Vrīhi) barley (Yavās) Māṣa, Tila, Mudga, Khalvas, Priyaṅgu Aṇu, Śyāmāka, Nivāra, and Masūra see Vāj. Sam. XVIII. 12 ; XIX. 22 ; and XXI. 29) all these words used being in the plural. The Taitt. Sam. distinguishes between black and white rice and speaks of the Āśu-dhanya and the Mahā-vrīhi (Taitt. Sam. II. 3. 1, 3. Taitt. Br. I, 7, 3, 4). Next we have in the Vṛhadāraṇyaka Up. (VI. 3. 12) a mention of the ten cultivated grains (Grāmyāni) e.g. rice and barley (Vrīhi-Yavās), sesamum and beans, (tila-māṣās), Anu and Priyaṅgu (Anu-priyaṅgavāḥ), wheat or maize (Godhūmāḥ), and lentils Masūra (Khala-kulāḥ)

In addition to the grains and plants enumerated above, other plants were cultivated or were valued for their medicinal or other properties. In the Vedic literature we find a division of the vegetable world into Oṣadhi, Vīrudh, and Vṛkṣa. The Oṣadhis were valued for their medicinal properties. In addition to the Soma plant valued for its juice used

in sacrifices, we hear of the great properties of Apāmārga, Kuṣṭha, Nalda, and other plants. Bhaṅga was known for its intoxicating property and is mentioned in the Ṛg-veda and in other Samhitās. Śana valued for its fibre, is mentioned in the Atharva Veda. In addition to these we find mention of the Eraṇḍa and Sarṣapa, being cultivated in order to extract the oil from the seed, the oil of Tila being also mentioned in the Atharva Veda. Of other plants we have the Alābu, urvāru and Āmalaka, the fruit of which was largely used. Of the more important trees we hear of the Aśvatṭha, the Khadira, the Vilva, the Nyagrodha, Udumvara, Aśvagandhā, Simbūla, and the Āmalaka. Fruit trees are mentioned but we have very little of details about them. Moreover it is doubtful whether they were planted or grew wild. Of fruit trees the Kulvala, Karkandhu, and Badara are mentiond in the Śatapatha Br. (V. 5.5.52). Certain plants came to be regarded as sacrificially unclean.

AGRICULTURAL IMPLEMENTS AND IRRIGATION

Agricultural implements.

Of agricultural implements, we have repeated mention of the plough (Lāṅgala, Sīra), but we know very little about its construction and shape. All that we know of the plough is, that it was large and heavy and required two, four or more oxen harnessed to it to draw it. In the Atharva Veda and other Samhitas the number of oxen used, is increased to eight or twelve, and this shows that a heavier plough was used, perhaps owing to hardness of the soil. It was sharp-pointed with a well-smoothed handle which was known as the Tsaru. It was also known as Śuna and Sīra, or Sitā. The plough-share was called Phala. In addition to the plough we have mention of other implements e. g. the Khanitra (shovel), Dātra, and Śṛni (sickle), Titau (sieve) and Sūrpa (winnowing fan) in various places. According to Kaegi the mattock and the hoe was also used. The Ūrdara or grain-measuring vessel has already been mentioned (see R. V, II. 14. 11.)

As to irrigation something has already been said. Of course cultivators depended upon rain, or where rivers were close by they watered their fields with the water of the river. Where there was scarcity of water people had to depend on the water of wells and the Ṛg-veda contains references to the water of wells being used for watering the fields and we have repeated mention of the word Avata meaning a well (see R. V, I. 85. 10; 1. 116. 9; IV. 17. 16; VIII. 49. 6; X. 25. 4). The water seems to have been raised by means of a wheel (Cakra) to which buckets of

wood were fastened. The evidence of another passage (R.V, VIII. 69. 12) shows that sometimes this water was poured into channels and sent to different parts of the field. (Vedic Index. I. 39). Muir (Sans. Texts V. 465-66) took the word Kulyā to mean artificial water-ways which carried the water into reservoirs.

In addition, to these the same book contains at least one reference to canal digging. When we come to the Atharva Veda, we find a description of canal-digging (A. V, III. 13). The newly-cut canal is described in figurative language as a calf to the river which is as the cow.

Canal digging.

The Kauśika sūtra (XL. 3-6) gives us the practical part of the ceremony of letting in the water. At first some gold plate is deposited on the bed, a frog with a blue and red thread round it, is made to sit on the gold, and after this the frog is covered with Śevala (an aquatic plant,) and water is then let in.

IV

AGRICULTURAL LABOUR

As to agricultural labour, most probably it was in the hands of the freemen house-holders themselves, who worked along with their sons and relatives. The early hymns show a state of affairs in which agriculture was looked upon as an honourable occupation. Wealthier people of course employed servants, or labourers recruited from the land-less poor or the aborigines in connection with the various agricultural operations. As the Aryan occupation extended over the country and the people became rich, slaves came to be employed. Slaves are mentioned in the Ṛg-veda and in other Samhitas, but we have no evidence to show that they were largely employed, or that slavery became the basis of Vedic husbandry. On the other hand prayers for male children, show that they were welcomed in assisting their fathers in their field operations. As yet there was no stigma attached to Brāhmaṇas engaging in agriculture, not to speak of Kṣatriyas or Vaiśyas. Much of the subsidiary labour allied to agriculture was entrusted to the women of the house.

Gradually, however, a class of landless labourers arose and these earned their living by working in others fields. With division of labour various classes of work-people came into existence and the Ṛg-veda mentions the words Dhanyakṛt and Upala-prakṣini. In the Atharva Veda we find Dāsis or slave girls employed in husking and other operations.

Agriculture thus had become the main stay of the people and consequently we have in the religious literature, all sorts of prayers and spells to remove hinderances to the proper growth of crops. As already mentioned we have in the Atharva Veda a large number of such prayers, directed against the failure of crops either owing to drought or lightening (A V. VII. 11), excess of rain or other causes. In addition we have charms for the hastening of rains (A. V, IV. 15) for the destruction of vermin, insects, (A. V. VI. 50 and 52) or locusts and for fair weather (VI. 128). Some of these hinderances occasionally caused great disaster to the population, though we have no detailed account in the early Vedic literature describing these calamities. In the Chandogya Up. we have the story of a famine caused by the destruction of crops by locusts (see Chāndogya Up, 1. 10. 1-3). According to the account preserved in that book, owing to disaster caused to the Kuru country by the destruction of harvest by locusts (Mataci) a sage named Cākrāyana had to migrate to a neighbouring country along with his young wife and had to live on Kulmāṣa. Famines thus often caused migrations and wanderings on the part of the distressed population. Unfortunately we have no graphic description of a famine during the Vedic Period.

V

THE AGRICULTURIST'S IDEAL

The agriculturist's ideal is described well in all the hymns for prosperity and increase, which we find in the Atharva Veda and the other Samhitās. Almost all the hymns speak in the same strain—agricultural prosperity, a bumper harvest, increase of cattle, and accumulation of wealth. It will be impossible to quote all such prayers for protection and prosperity but the harvest hymns of the Atharva Veda throw light on the requirements of the peasantry and their simple ideas of happiness. The following harvest song of the Atharva Veda (A.V, III. 24.) speaks of the ideals of the peasantry.

1. "The plants of earth are rich in milk, and rich in milk is this my word.
So from the rich in milk I bring thousandfold profit.
2. Him who is rich in milk I know. Abundant hath he made our corn.
The God whose name is Gatherer, him we invoke who dwelleth in his house who sacrifices not.
3. All the five regions of the heavens, all the five races of mankind,—
As after rain the stream brings drift, let them bring increase hitherward.
4. Open the well with hundred streams, exhaustless, with a thousand streams.
5. O Hundred-handed, gather up. O Thousand-handed, pour thou forth.

Bring hither increase of the corn prepared and yet to be prepared.

6. Three sheaves are the Gandharvas' claim, the Lady of the house hath four.
We touch thee with the sheaf that is the most abundant of them all.
7. Adding and Gathering are thy two attendants, O Prajāpati.
May they bring hither increase, wealth abundant, inexhaustible. (Eng. trans. by Griffith')

VI

SHEEP AND CATTLE-REARING

In the earliest period e. g. before the period of definite settlement cattle-breeding was one of the main occupations of the Vedic Aryans. Even after the development of agriculture, cattle remained their principal wealth. In the earliest period forays and raids for cattle, were common and in the Rg-veda we have ample evidence of this. In the Śata-patha Br. in connection with Royal coronation the cow raid is mentioned, this being a relic of older days and customs. Throughout the whole of Vedic literature we find innumerable prayers for the increase of cattle. There are one or two prayers addressed to Puṣan to find out new pastures and to lead the shepherds there.

The cow was invaluable to the Vedic Aryans for its great economic value and for a long time remained even the standard of value in ancient India. Individual ownership was known very early and the Samhitās speak of branding and the use of marks to distinguish cattle belonging to various owners. Even in the earliest period we find mention of large herds owned by individuals. In the Dāna-stutis we find mention of gifts of large numbers of cattle by princes and rich people.

The principal domestic animals in the Vedic period including the cow were

(1) The cow, and the buffalo
(2) The horse and the ass (also the mule and the donkey)
(3) The Camel
(4) The sheep and goat.

THE COW.

From the earliest time the cow was regarded as the most important and most valuable of the domestic animals. It was domesticated probably in the Indo-European period as is proved by the similarity of Sanskrit Go (Gaus. Nom.) with Slav. Liu. Gow, and Zend Gao. In the Indo-Iranian period the cow was highly prized and was held in high veneration. The economic importance of the cow and its products was so great that the animal was absolutely indispensible to the Vedic householder. To supply the needs of Vedic households large herds were maintained. The cow-stall was situated within the precincts of the house and the kine were taken care of, by the inmates of the house. The meaning of the words Duhitṛ shows that the work of milking was at one time entrusted to the daughter of the householder. Every morning the kine were sent out to the field for grazing, and in the evening they were kept in the Goṣṭha. While grazing they were separated from the calves and were put under the charge of the herdsman. They were generally milked thrice a day. In addition to the milk of the cow and its various preparations the flesh was at one time used for food (Vedic index I.231; also U.C.Vatavyāla's article on Beef-eating in the Veda Praveśika, also Dr. R. L. Mitra's article on the Practice of Beef-eating in ancient India in the Indo-Aryans). From the evidence of Vedic literature, it is clear that in early times the flesh of the cow as well as that of the bull, was largely taken, and in conection with all important ceremonies and sacrifices, we find the regular slaughter of these animals enjoined, The slaying of the Mahokṣa and the Mahāja was regularly prescribed for the feeding of the guests even in some of the Gṛhya Sūtras. In the Vedas the word Goghna (the cow-eater—according to some scholars) is applied to mean a guest. In the Taitt. Br. we find the

The cow indispensible.

division of the limbs of the slaughtered cow among the various gods descried in detail. The cow and the bull were slain on occasions of marriage and in certain forms of Śradhas e.g. the Māṃsaṣṭakā. The cow was sacrificed to the manes. From the Śatapatha Br. (III. I. 2. 21.) and the Taitt. Br. (II. 7. 11. 1) we know that Yagñavalkya and Agastya were described as taking beef.

On the other hand we find a decided tendency against cow-slaughter even in the Ṛg-veda. There the words Aghnya and Aghnyā, applied to the bull and the cow, occur many times (16 & 3 times). The very use of these words goes to show that public feeling looked upon the slaughter of these animals as injurious to society and in the Śatapatha Br. we have a long discourse (Śatap. Br. III. 1. 2. 3.) on the non-advisibility of cow-slaughter, and we find the injunction "let him not eat the flesh of the cow or the ox for the cow and the ox doubtless support every thing on earth."

The various articles of food obtained from milk are described in the Śatapatha Br. (III. 3.3.). In addition to these the fat of the cow was used for various purposes. The skin served the purpose of a mattress and on the occasion of marriage the newly-married wife had to sit on a cow-hide along with her husband. Cow-hide was used for manufacturing various articles. Thus in the Ṛg-veda we find mention of Dṛties (leather bags to hold fluids). It also (Vi. 48. 18) refers to bags of skins in which curd and wine were kept. Some passages (Vi. 49) refer to chariots covered with cow-hide. The evidence of some of the later works, (Pañca. V. Br. XIV. II. 26.; and XVI 13. 13.) proves the use of these leather bags for holding milk, wine and other liquids.

From the earliest period the cow was used as a standard of value in purchasing articles. Thus in the Ṛg-veda we hear of the buying of an image of Indra for a few cows,

In the Brāhamaṇas too, we find Soma bought with a cow one year old and immaculate.

Oxen and bullocks were used for ploughing, for drawing wagons, and for carrying loads.

For the purposes of grazing, the cattle were placed under a cow-herd who after grazing the cattle led them to the respective houses (R.V, X. 19 3-4).

THE BUFFALO :—Like the cow the buffalo was a useful animal. In addition to its milk, its flesh was probably eaten (see R. V, V. 29. 8; VI. 17. 11; VII. 12. 8.; VIII. 77.) In one of the Vedic passages quoted above we find Indra slaying buffaloes, the flesh of the slaughtered animal being used for food.

THE HORSE :—(Aśva. Haya. Vajin, Arvant, etc.) The horse too, was probably domesticated in the Indo-European period and this is proved by the similarity between Skt. Aśva and Sl. Liu. Aszva. By the time of the Ṛg-veda, the horse e.g. Aśva had become one of the most important of domestic animals. In the Ṛg-veda it is always praised for its speed. Its importance was due most probably to its use in war, and we find them largely used for drawing chariots and carts. They were also used for riding and in the races which formed a very important and favourite game of the Vedic Aryans. In the Brāhamaṇas we have innumerable references to the gods engaging in horse-races to win prizes. In Vedic warfare cavalry was probably used, (see R.V, II. 34. 3 and V. 61). The Aśvins and the Maruts were fond of riding. In the Ṛg-veda (IV. 39) the horse is described in connection with the invocation of the Dadhikrā, and it had probably a sacred character. The sacrifice of the horse was regarded as being of the highest religions merit. According to the evidence of some passages the flesh of the horse seems to have been eaten (R.V, I. 163).

The regions about the river Sindhu and Sarasvatī were famous for horses.

In the innumerable Dānastutis we find the horse as an object of gift (R. V, VIII. 46). Horses were often given to priests as sacrificial fee especially in connection with the worship of Sūrya.

THE ASS, MULE AND DONKEY :—In addition to the horse, the ass, the mule and the donkey were also used for drawing chariots and other purposes. As to mules their hardiness is praised and their sterility dwelt upon and explained in some of the Brāhamaṇas. Mules and donkeys were used for carrying load and drawing carriages. The story of the race won by the Aśvins with a carriage drawn by donkeys is found in the Aitareya Brāhamaṇa (see Aitareya Br. IV. 9.).

THE CAMEL :—Camels were largely used for carrying loads. Probably these animals were of great service in the sterile regions without water near the desert. In the Ṛg-veda we find mention of gifts of camels (see R. V, VIII. 5. also R. V, VIII. 46). In the Atharva Veda we find them drawing carts (A. V, XX. 137. 2).

SHEEP AND GOAT :—(Avi & Aja) The usefulness of the sheep and the goat is repeatedly mentioned in the Ṛg-veda and the later Samhitās. In the first named book the god Puṣan is represented as weaving woolen cloth, and is said to wear a garment made from the wool of sheep (R. V, X. 26). Large herds of sheep and goat are mentioned in many places of the Ṛg-veda and the other Samhitās. The flesh of these was largely used as food, while the wool was used for clothing. In the time of the Ṛg-veda the wool of Gāndhāra was highly prized.

THE ELEPHANT :—(Vāraṇa, Hastī) Elephants are mentioned in the Ṛg-veda and the Atharva Veda, in addition to the later works. In the Ṛg-veda we find mention of kings riding on elephants. The Ṛg-veda also seems to refer to elephants probably used in war. (R. V, VIII. 33. 8).

THE SWINE :—(Sūkara) As to the swine we have very little imformation. In the Śatap. Br. (V. 4. 2. 19) we have the story of the origin of the boar, in which the fat of the boar is referred to. The same speaks of pig-skin shoes.

VII

HUNTING AND FISHING

HUNTING AND FISHING:—Hunting and fishing remained the occupation of a large section of the people especially the aborigines. Some were hunters by profession and lived by it, used bows or arrows, or the snares.

FISHING:—Fishing became the main occupation of a section of the population who belonged to the aboriginal classes. In the Yajurveda we find the words Dasa, Kaivarta or Kevarta and Dhaivara, all denoting fishermen. In the Ṛg-veda we have very little reference to fishing. Of fish the Śakula is mentioned. Crabs (Kakkata) are also mentioned.

Of fish-eating we know very little from the Vedas although the land inhabited by the Aryans contained mighty rivers abounding in fish. This may be due to aversion to fish eating, but there is no direct evidence pointing to it. In the later Smṛti works, fish was not only prescribed as food but was offered to the manes and the guests. Of aquatic animals other than fish, the tortoise (Kurma or Kaśyapa) is spoken of in glaring language in the Śatapatha Br. (VII. 5. 1. 5.) which describes it as a sacred animal from which all creation sprang up. It is doubtful whether the flesh of these used to be taken.

PEARL FISHERY:—References to Pearl-fishery exist in the Ṛg-veda and Atharva veda, and the word Kṛśana occurs. (Vedic Index I. 181).

CHAPTER III

I

THE GROWTH OF ARTS AND CRAFTS

Of the arts and crafts of the Vedic period, some seem to have arisen undoubtedly before the Aryans came and settled down in the Punjub. Many nations of antiquity had made considerable advance in them, as would appear from the similarity existing between some words of the Sanskrit language and corresponding words of various Indo-European languages, denoting the same craft, industry or occupation. Thus the similarity existing between Sanskrit Takṣan and Zend Tashan and Greek Tektan all meaning a carpenter, proves the existence and development of the carpenter's art among the Indo-Europeans before the separation. Again, when we come to discuss the origin of weaving, we find that the Sanskrit words Tan, and Tanti (string), Zend Tan, Greek Teinō, Latin Tendo, all meaning stretching, are closely allied to each other. For plaiting we have the Sanskrit root Prc, akin to, Greek plekō, and Latin Plico all similar in sound and in sense. Similarly, for weaving we have the Sanskrit root, Ve, Latin Vieo, Teutonic Weban, all akin to each other in sound and in meaning.[1]

The above philological evidence is really interesting and from this comparison of words denoting carpentry, stretching and weaving, we may safely draw the conclusion that a common knowledge of some of these crafts (e. g. those of the carpenter, boat-builder, and the weaver) existed among a large number of communities who in antiquity were

[1] For similar comparisons see Biographies of Words.

closely related to each other either by blood or by speech. Max Müller discussed this subject in his "Biographies of words" and after him Schrader took up the study of the same subject. According to the latter, the primitive Indo-Europeans knew in addition to certain crafts, the rudiments of platting and weaving and this art had advanced a little.

From a study of the Ṛg-veda and the other Samhitās it would appear that by the time of Ṛg-veda society had long passed that primitive stage in which families or individuals supplied their own necessaries by their own skill and labour. Industry had come into being, and, moreover, the ruralised industry was on its way to a further development. There was a decided tendency towards division of labour and the growth of various sub-crafts. In the early Vedic period, industry does not appear to have been servile and some of the early craftsmen like the Rathakāra and the Takṣan enjoyed a considerable social status. They stood in close relation to the king of whom they were regarded as Sti or clients (Supra pp. 95-96). The main impetus towards the development of industry came from the ever-increasing requirements of the agricultural and military needs of the community, settled in the midst of a hostile population. With the growth of the crafts the organisation of the craftsmen into guilds came into existence.

For a time, however, with the elevation of the princely class and of the priests, the agricultural and industrial population lost the social status they once enjoyed. The Vaiśyas, the mass of the industrial population came to be regarded as being tributary to another (Anyasya valikṛt), and oppressed at will (Ait. Br. VII. 29. 3), while the Śūdras were regarded as the servants of others, whose lives could be taken with impunity. Towards the end of the Vedic period, however, there came a change. The Vaiśya and the Śūdra communities, looked down upon by the higher castes,

were able to improve their position by organising into guilds, which gave them protection against oppression and helped them in making their economic condition better. At present we know very little about the guilds which existed in the Ṛg-vedic period, but some of the words denoting these bodies in later literature, occur even in the Ṛg-veda and prove their existence in that very early period. The question of guild-organisation will receive attention in its proper place. Of the more important industries of the Vedic period we may mention the following :—

1. Working in wood—carpentery, including boat and chariot-building and making of household implements and furniture.
2. Weaving.
3. Working in metals.
3. Pottery.
4. Tanning of hides.

II

THE VARIOUS CRAFTS

WORKING IN WOOD :—In the Ṛg-veda we have men tion of the carpenter e.g the Takṣan and Taṣṭṛ see (R. V., IX. 112. 1). In addition to the ordinary carpenter who was employed in making vessels of wood and household furniture, we have the Rathakāra who made Rathas (chariots) and wagons. The Rathakāra enjoyed a high social position, and is mentioned in many places in the Vedic literature. His importance was due to his work e.g. the chariot, which was important in conection with the warfare of those days. References to boats and ships pre-suppose the existence of boat-builders. From the Ṛg-vedic days downwards, we have mention of Plavas and N vas of Navus. Later on in the Satapatha Br. we find mention of the two rudders of a ship or Nau-maṇḍa (Sat Br. II. 3. 3. 15.)

WEAVING:—The art of weaving also originated with the Indo-Europeans Inspite of the knowledge of weaving the hide of slain animals and the bark of trees often supplied garments to the poorer or backward sections of the Vedic community (R. V, X. 136. 2). Hermits and Brahmacāris continued to use these till the time of many of the later Smṛti works. As a rule however, garments made of wool or of other materials were largely used by all classes of people in the Vedic period.

The earliest references to weaving are found in the Ṛg-veda. In that book as also in the Atharva Veda we have

repeated occurence of that simile in which night and dawn are compared to two young women engaged in weaving (R. V, II. 38. & A. V, X. 7. 42). In the fourth Maṇḍala of the Ṛg-veda we have a reference to a cloth-stealing thief (Vastramathim tāyum). In the sixth Ma ala we have a distinct reference to weaving and the occurence of the words Tantum, Otum, and Vayanti (R.V., VI. 9. 2.). The roots Ve and Tan meaning weaving and stretching, occur in many places of the Vedic literature. Moreover, the Ṛg-veda contains the word Vāya meaning a weaver (X. 26. 6) and the word Tasara meaning a weaver's shuttle (X. 130. 2). In the Yajurveda we find the word Veman meaning a loom (see Vāj. Sam. XIX 83 ; also Maitrā. Sam. III. 11. 9 ; Kāt. Sam. XXXXIII. 3 ; Taitt. Br. II. 1. 4. 2). The Vāja-saneyi Samhiṭā mentions the use of Mayūkhas or wooden pegs to stretch the web on, and the use of leaden weights (Vāj. Sam. XIX. 80). In addition to these we have a large number of words showing the extensive use of woven garments and the names of parts of the Vedic Aryan's dress. The words Vasana (R. V, 1. 95. 7) Vastra (R. V, I. 26. 1; I. 134. 4 ; II. 29 ; III. 39. 2 ;) Vāsas (R. V, I. 34. 1 ; I. 115. 4 ; I. 162, 16 ; VIII. 3. 24 ; X. 26. 6 ; & X. 102. 2) occur in the Samhitās. In addition to these we have the words Atka (mantle), Uṣṇīṣa (Turban) Nivi, Paridhāna, Samūla, Sāmulya (woolen garments), and Peśas (embroidered garments (R. V, II. 3, 6 ; IV. 36. 7 ; VII. 34. 11 ; also Vāj Sam, XIX. 82. & 89 also XX. 40).

As to the material used in the weaving of cloth, wool was probably used first (Urnā). In the Ṛg-veda the god Puṣan is described as engaged in weaving woolen cloth and wearing a garment of wool. In the Ṛg-vedic period the wool of Gāndhāra (R. V. I. 126. 6), of the Paruṣṇī country and of the Indus region (R. V, X. 75. 8) was highly prized. Urnā Sūtra is mentioned in later Samhitās (Vāj. Sam. XIX. Maitrā Sam III. 11. 9 ; Kāt. Sam. XXXVIII. 3).

LINEN :—Next to wool we meet with the use of linen garments. The word Kṣauma meaning a linen garment occurs in the Maitrāyaṇī Samhitā and in some of the Sūtras. The word Tārpya occurs in the Atharva Veda (A. V, XVIII. 4.31) and in other Samhitās (Taitt. Sam. II. 4. 11. 6 ; Śatap. Br V. 3. 5. 20 ; Kāyāyana. Śr. Sūtra XV. V. 7.). As to the meaning of T rpya there is a difference of opinion. According to Indian commentaries T rpya means linen but according to Goldstücker it means a silken garment. According to Max Müller Skt., Kṣauma and Umā mean flax or linen.

ŚANA :—The word occurs in the Atharva Veda and in some later works. As to its use details are lacking. The Atharva Vedic passage simply describes it as growing in the forest. (A. V, II. 45).

COTTON :—As to the use of cotton in the Vedic period we have no information. As far as our knowledge goes cotton has been indigenous to India, and it was extensively used in India at least before the 7th century B. C. However at present we have nothing to prove its use in the Vedic period. The word Karpāsa does not occur in Vedic literature proper. Its earliest mention is found in the Āśvalāyana Śrauta Sūtra which was composed not later than the VIIIth cen. B.C. From this we may conclude that the use of cotton was known towards the close of tho Vedic period, when the Aryans came to occupy the cotton-growing districts.

In the early Vedic period weaving was most probably entrusted to women. This would appear from the Vedic simile cited above in which night and dawn are compared to two women engaged in weaving. The word Sirī (R. V, X. 71 9) probably means a female weaver (R. V. I. 92. 3 ; A. V, X. 7. 42. and XIV. 2. 51.). The Vāja-saneyi Sam. contains the word Peśaskārī meaning a woman engaged in making embroidered garments, (in the list of human victims in the

Puruṣamedha; Vāj. Sam. XXX. 9). The Pañca V. Br. (1.8. 9) contains the word Vayitrī meaning a female weaver. Women were also engaged in washing and dyeing cloths as would appear from the words Vāsaḥpalpūlī and Rajayitrī.

TANNING:—Tanning of hides was known in the Ṛg-veda where we find mention of the Carmamna meaning a tanner. The Ṛg-veda (VI.48,) refers to bags and pots of hide or skin in which milk, curd and wine were kept. Chariots were covered with cow hide. No further details as to the process of tanning have come down to us, but the Śatapatha Br. seems to refer to stretchihg of hides with pegs.

POTTERY :—The potter is mentioned in the Vedic literature where we have the word Kulāla (Vaj. Sam. XVI 27 ; Maitrā. Sam 1. 8. 3 ; also Vāj. Sam. XXX. 7) meaning a potter. The word Mṛtpaca too occurs in the same sense.

WINE DISTILLING :—Wine-distiling was an important industry in the Vedlc period. Of the intoxicating drinks we hear of the Soma, the sacred sacrificial drink obtained from the Soma plant wnich probanly grew in the mountains, and the Surā which was a strong drink. used, in certain sacrifices. As to Surā, in Taitt. Brāhmaṇa we have (Taitt. Br 11.6) an account of its preparation. The ingredients used were powdered rice, barley and sour milk. Kilāla was probably a variety of Surā (a kind of rum) while Parisrut was a drink made from flowers. The Surākāra meaning a wine-distiller occurs in Vedic liturature.

As to the introduction of the vine we have no informa- from the Vedic literature. By the time of, Paṇini, however, Kapiśa became famous for its garpes and the wine prepared from it.[1]

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[1] Pāṇini IV. 2. 99.

KNOWLEDGE OF AND WORKING IN METALS

From the evidence of the Vedic literature we know that the Vedic Aryans were acquainted with the use of the following metals :—

1. Gold—Hiraṇya, Harita, Suvarṇa, Jātarūpa, Candra etc.
2. Silver—Rajata-hiraṇya or Rajata.
3. A Third metal—(iron, copper or bronze ?) Ayas or Lohāyasa.
4. Copper—Loha.
5. Iron or steel—Ayas—Śyāma, Kārṣṇāyasa.
6. Lead—Sīśa.
7. Tin—Trapu.

Of these the Ṛg-veda mentions gold and the metal most used at that time—Ayas As to Ayas we do not at present know whether it was iron or copper or bronze. The Atharva Veda mentions in addition to gold and silver (Raja a A V, V. 28) Lohāyasa, or Lohitāyasa, Śyāma (A.V. IX 5.4.) occuring along with Asi meaning sword. The word Ayas too occurs in the same passage), Ayas (A. V, V. 28), Trapu (Tin A. V, XI. 3. 17) and Sīsa lead, A. V, XII 2. 1). The Vājasaneyī Sam (Vāj. Sam. XVII 2. 1) gives us a list of the metals then known e.g. gold, (Hiraṇya) Ayas, Śyāma, (iron), Loha (copper), lead (sisa), and Trapu (tin). The real meaning of Ayas wil be discussed separately.

GOLD :—Gold according to Schrader was known to the Indo-Iranians as is proved by the similarity between Sanskrit. Hiraṇya and Zend Zaranya. It is repeatedly mentioned in the Ṛg-veda, Atharva Veda and other samhitās, where golden ornaments, golden necklaces, armlets, and ear-rings, worn by princes, wealthy men, bridegrooms, and women of high society are spoken of. In times of marriage, ornaments of

gold were given to the bride by her relatives. In connection with ceremonies and sacrifices gold was also largely used. In the Taitt. Sam. (V. 7. 13.) golden discs were used, and a golden image of man was used in Aśva-medha since gold was regarded as immortality. In the Ṛg-veda. (V. 19. 3) we find the word Niṣkagrīva (wearing golden necklace). According to the same book, golden ornaments were used by bride-grooms and formed part of the gift to brides by their fathers or brothers; golden armour (Piśaṅgam and Drāpī—see R. V.) were used by princes. In the innumerable Danastutis of the Ṛg-veda, gifts of gold pieces, ornaments (Niṣka) or lumps of gold (Hiraṇyapiṇḍan) are mentioned. Apart from this use of gold, gold coins came into circulation. The question of the use of gold as medium of exchange will be discussed later on.

SILVER (RAJATA) :—According to the evidence of the Ṛg-veda, silver was most probably not known to the Ṛg-veda Aryans. In the Atharva Veda, Rajata occurs and it must be taken to mean silver. The Atharva Veda (V. 2. 28) describes an amulet of three metals e.g. of gold, silver, (Rajata) and iron and Silver is said to grant vigour to the wearer. The word Rajata again occurs in the Atharva Veda. (XIII. 4. 51). In the Taittirīya Samhitā we have the story of the origin of silver and there the word Rajata-hiraṇyam is used. According to the same story the god Agni carried off the booty gained by the devas from the Asuras. Pursued by the other gods he cried and his tears were turned into silver. In the later Samhitās and Brhamaṇas, we find repeated mentions of ornaments and plates of silver (Śatap. Br. XII. 8. 3. 11.; Taitt. Sam II. 2. 9. 7; III. 9. 6. 5). The Pañcaviṃsa Br. describes the Vrātyas as wearing silver necklaces (XVII. 1. 14).

AYAS OR THE THIRD METAL :—As to the real meaning Ayas, a metal largely used in the Ṛg-vedic period, there is a difference of opinion amongst scholars. The Ṛg-veda

as well as all the other Samhitas are full of references to Ayas and articles made of it, but nowhere there is any clear indication to tell us whether the metal was copper, iron, or brass. The evidence of some of the old texts is often misleading. Thus in Śatapatha Br. (V. 1. 2. 14) Ayas is any metal which is neither gold nor lead. In the Vāj. Sam. (XVIII. 13) Ayas is separated from Loha and Śyāmam. Max Müller was once inclined to believe that Ayas meant iron, but changed this opinion later on. In a learned article in which he discussed the meaning of Avas he summed up as follows :—"All, therefore, we are justified in stating positively is, that at the time of the Ṛg-veda besides silver and gold, a third metal was known and named Ayas, but whether this name was referred to either copper or iron or to metals in general, there is no evidence to show." In this connection Schrader in his Prehistoric Antiquities says that it probably meant neither iron nor bronze but the pure dark copper which was known to the original Indo-European peoples (compare Sanskrit Ayas, Latin. Aes, Goth. Aiz, Zend Ayarih). He further points out that "It is worthy of note that a series of names of copper gradually assumes the meaning of iron." Thus Sanskrit Loha originally meant copper but later it was used to denote Iron.[1]

Whatever be the real meaning of Ayas, it was extensively used throughout the Vedic period. As to agricultural and household implements we find mention of various articles made of Ayas e.g. Aya-hata (R. V, IX. 1. 2; IX. 80. 2) Ayasmaya (R. V, V. 30. 15). In connection with chariots we hear of poles of Ayas (Ayasthūṇa—V. 62. 8.) and in connection with warfare we find mention of warriors wearing mailed armour (R. V. VI. 27. 6.) or bearing Sipra

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[1] Maxmuller Biagrophies of words. Appendix V. Vedic Index. I. 32; Prehistoric antiquities P. 212

(Visor—R. V, 113. 4 ; V. 54. 11 ; VII. 7. 25) Khṛgala or body armour (R. V, I. 25. 3 ; II. 39. 4) Samtras, Drapis (see R. V, IV. 53) all made of this metal. The Ṛg-veda (V. 53) describes armours and weapons of metals. (e.g. V si, Rukma, Khadi, Ṛṣṭi). Arrows were tipped with metal points (Ayasagra) and the God Puṣan was armed with a metal goad. The Ṛg-veda also mentions razors.

We have distinct references to the smelting of metals and the business of the smith (see R. V, VI. 3. 4; IV. 2. 17 and IX. 9. 12). The Ṛg-veda mentions the smith along with the carpenter, the physician, and other craftsmen. Other Saṃhitas, too, mention him. In the Atharva Veda the smith is said to be one of the Manīṣinaḥ or clever workers. The smith smelted the ore and was called Dhmātṛ. Mention is also made of the bellows.

LOHA :—Loha, the red metal or copper. It occurs in the Atharva Veda as Loha and Lohita (XI. 3. 17), and also in the list of the metals in the Vāj. Sam. (XVIII. 13). The words Lohamaya and Lohāyasa occur in the Śatapatha. Br. (V. 4. 12 ; and also XIII. 2. 2. 8). In the Taitt. Sam. it is distinguished from Śyāma or iron. It is called Loha from its colour As to its meaning scholars often differ. Roth explained Loha in Lohamaya as made of copper or iron, in connection with the explanation of a passage in the Śatapatha. Br. in which three words Hiraṇmaya, Lohamaya, and Ayas exist side by side. Max Müller thought of translating Loha by copper if there was but a certainty that Ayas meant (made of) iron. Schrader translated Loha by copper and his opinion has already been cited.

ŚYĀMA :—Śyama or the black metal is used in Atharva Veda (IX. 5. 4 ; XI. 3. 7) apparently to meani ron because the word occurs along with Asi meaning sword (see also Taitt Sam. 7. 5. 1 ; Kat. Sam. XVIII. 10 and Vāj Sam. XVIII. 10) The early mention of articles made of Śyāma goes to prove that

the Indians learnt the process of extraction of Iron from the ore very early. In subsequent periods the iron and steel manufactures of India were famous throughout the world.

TRAPU :—or tin is mentioned in Ath. Veda (XII. 3. 18) in the Vāj. Sam. (XVIII. 13) in Taitt. Sam. (IV. 7. 5. 2) Katha. Sam. (XVIII. 10) and Maitrā-Saṃhitā.

SISA :—Lead—occurs in the Atharva Veda (XII. 2. 1 ; I. 16. 2. 4) in the list of metals in the Vāj. Saṃhitā where we also find the statement that grass and other necessaries of sacrifice were obtained in exchange of lead. It is also mentioned in the Śatapatha. Br. (XII. 7. 1. 7) and in the Chāndogya. Up (IV. 17. 7).

GOLDEN ORNAMENTS :—Of golden ornaments we hear of tbe Niṣka or necklace made of gold pieces (R. V, II. 33. 10 ; VIII 47 ; A. V, V. 14. 3 ; Chāndo. Up. IV. 21). The Kurira (head-ornament) is mentiond in connection with the bride's ornament R. V. X. 85. 8 ; A. V. VI. 138. 2), as also Kumba (head ornament VI. 138 3), Karṇaśovana (R. V, I. 122 14, VIII. 78. 3) Rukma, Khādi, anklets, armlets and rings. Princes and rich people bedecked themselves with gold. Gold ornaments were worn by brides, and formed a part of the gift by their fathers or brothers. Princes, especially those who were rich, used armours of gold.

Workers in gold and manufacturers of jewellery *e.g.*, the Hiraṇyakāra and Maṇikāra are mentioned in the list of human victims of Puruṣamedha in the Vājasaneyi Sam. (see Vāj. Sam. XXX. 17 and also the Taitt. Br.).

CHAPTER IV.

I

LABOUR AND OCCUPATIONS.

From the discussion of the arts and crafts we pass on to the study of the occupations of the people. As we have already said, Ṛg-vedic society was hardly primitive and even the oldest portions of that book show germs of a social division, arising out of the adoption of different occupations by different sections of the community. With the advancement of culture, social life, too, became complex. The ever-increasing wants of society gave rise to different crafts. The requirements of agriculture, of war and of religion gave a stimulus to these craftsmen. Sections of the community began to engage themselves in these occupations. The success of a few induced a large number to follow the same occupation. The advantages of a division of labour became apparent, and led to a further subdivision among these craftsmen. As yet in the early period there was no stigma attached to the following of these professions, and consequently a part of the Vaiśya community took up the business of the smith, the carpenter, the weaver, or the chariot-builder. Some of these stood in a special relation to the kings and chiefs of those days and were known as the "Upasti" (see R. V, X. 97-23 and A. V, III. 5-6 7).

Apart from these skilled workmen, there were the landless poor, who made service as the chief means of their livelihood. The servile classes became workmen or engaged in lower crafts like pottery or basket-making, or took to

hunting or fishing. The existence of some of these occupations is proved by the evidence of the Ṛg-veda which speaks of the varieties of professions in which men engage and mentions the physicians, the wright, the barber the smelter, the carpenter, the cow-herd in addition to many others.

In R. V, IX. 112 a bard describes the various professions very beautifully.

Thus he says—The Brāhmaṇa seeks the worshipper.
The wright seeks the crackled—
The leech the maimed.
The smith with enkindled flames
Seeks him who hath stores of gold.

In the Ṛg-veda other occupations are mentioned. Thus the barber is mentioned ; the merchant is spoken of in more than one place (see R. V, IX. 112). From the Atharva Veda we have more information on this point and the Vājsaneyi Samhitā gives us a list of various occupations in connection with the victims of the Puruṣamedha (see Vāj. Sam. XXX.) From all these we can form an idea as to the extent of division of labour at the time of their composition. The following is a list of the principal occupations.

PRIESTLY OCCUPATIONS :—First of all, there were the Priestly class, who earned their livelihood by officiating in sacrifices, by teaching the sacred lore, or in other ways ministering to the spiritual needs of the community. As has already been shown, various grades of priests had arisen and these included the following *e.g.*

Ṛtvij—priest officiating in sacrifices.
Chandoga—reciter of verses.
Somin, Udgītha, Gāyatrin—priest or reciter.
The Adhvaryu—a yajus priest.
The Brahma priest.

Gaṇaka—astrologer.

Nakṣatradarśa—astrologer.

Bhiṣak—physician.

Even during the days of the Ṛg-veda the practice of medicine had become a profession. The word Bhiṣak occurs in many places of the Ṛg-veda. The healing art was highly lauded, and the Aśvins, the divine physicians were repeatedly invoked. In addition, Varuṇa and Rudra were also called physicians. To the physician's skill was attributed the healing of the blind and the lame; the story of the restoration of Cyavana's youth is mentioned in many places. As yet there was no stigma attached to the following of this profession, though the germs of the later dislike, is found in the Yajurveda (Taitt. Sam. VI. 4. 9. 3. etc.).

AGRICULTURAL OCCUPATIONS :—Agriculture and allied operations drew a larger number of people. Besides the high caste husbandmen we hear, of various agricultural labourers. We have the names of the following :

Kīnasa
Kriṣīvala } ploughman.

Gopa and Gopāla—herdsman.

Avipāla and Ajapāla—Goatherd.

Paśupa—herdsman.

Dhanyakṛit—one employed in husking.

Upalaprakṣiṇī—woman employed in making groats.

Vapa—sower of grains.

INDUSTRIAL :—Of those engaged in the various arts, the following are worthy of being mentioned *e.g.*

Karmara—smith.

Dhmatr—smelter.

Kulāla and Kaulāla—potter.

Mṛitpaca—potter.

Iṣukāra—one who makes arrows.

Dhanuṣkāra, Jyākāra—bow-maker.

The separation of the arrow-maker from the bow-maker shows the extent of the division of labour.

Takṣana—carpenter—who produced all sorts of work—both rough and fine. In the Vedic age they do not seem to have been members of a lower caste.

Prakaritṛ—stone-carver.

Peśitṛ—carver.

Vidalakārī—basket-maker.

Maṇikāra, Hiraṇyakāra—worker in gold and jewellery.—The existence of these skilled workmen shows the wealth of the society.

Rajayitṛ—dyer.

Vāya—weaver.

Vayitrī—a female weaver.

Peśaskārī—a female embroiderer. The fine embroidered cloths produced by them was used by the rich, who are described as wearing mantles adorned with gold—(R. V, V. 55. 6). The weaving industry was then mostly in the hands of women.

Rathakāra—chariot-builder. The importance of these craftsmen was due to the use of the chariot in war. They are mentioned in the Ṛg-veda. By the time of the Atharva and Yajur-vedas they formed a separate caste and stood in special relation to the king and occupied a considerable social position.

Rajjukāra—rope-maker.

Surākāra—wine-distillers, who seem to have formed a separate caste in a society which used various

kinds of intoxicating liquors in spite of the fact that drinking was looked down upon as an evil (A. V, VI. 70. 1.).

NON-INDUSTRIAL AND MENIAL OCCUPATIONS

In addition to the above we find mention of the barber (Napita, Vaptṛ), washerman (Malaga, Vāsaḥpalpūlī), gatherer of wood (Dārvahāra), fisherman (Dāsa, Dhīvara, Dhaivara, Vainda, Mainala, Kaivarta, kevarta), herdsman (Gopa, Gopāla), huntsman (Govikartana), drum-beater (Dundubhyāghāta), cook (Paktṛ, Pācaka, Śrapayitṛ), charioteer (Sārathi, Rathin, Rathagṛtsa, Dhūrṣad, Yantṛ), elephant-keeper (Hastipa), servant (Anukṣattṛ, Kṣattṛ), doorkeeper (Dvārapa, Gṛhapa), guard or servant (Pāyu, Puruṣa,) Preṣya, (Pratyenas), menial, or messenger (pālāgala), waiter, (Parivestṛ), waiter (Paricara), rower (Anithin), boatman (Nāvāja), groom (Aśvapa), bath-attendant (Upaṣektṛ), shampooer (Upamanthitṛ).

In addition to these there were others who earned their living by amusing the public or ministering to the luxury of the rich. The Puruṣamedha list mentions actors (Śailuṣa), dressmaker (Peśaskārī), exciters of love (Smarakāri), lute player (Vīṇāvāda) Tūṇabadhma, Śaṅkhadhma. Similarly, we hear of Vāṃśanartāka (acrobat) Vināgathin (lute-player) Talaba, Paṇighna (Hand-clapper) Sabhāvin (keeper of gambling houses). The evidence of the Ṛg-veda and other Saṁhitās proves the existence of courtesans (R. V, X. 27. 12).

We know further that with the growth of the state there arose a class who lived by accepting service under the king. Prominent amongst these officials we have the Ugra (police

officers) Jivagṛbh (police officer) atapati, and later on the Am tyas and Sacivas (included in the list of the Ratnin).

The evidence of certain words shows the existence of merchants and bankers. The words Vaṇij and Vāṇija occur even in the Ṛg-veda. The words Śreṣṭhi, meaning a rich man or a banker, and Kusidin (a usurer) occur in the Aitareya and other Brāhmaṇas.

II

LABOUR

LABOUR :—A study of the economic condition of the Vedic period shows that as yet labour was not wholly servile : much of the agricultural labour was in the hands of the freemen householders along with their sons and kinsmen. Gradually, however, there arose various labouring classes recruited from the landless poor or conquered enemies. Slaves existed and in the Samhitās we have repeated mention of slaves (Dāsa). In the Ṛg-veda we have prayers for the acquisition of slaves and we hear of gifts of slaves (R. V., III. 46. 32 ; VIII. 56. 3). We do not, however, know the extent to which slave labour was employed or anything as regards their status and condition.

FEMALE LABOUR :—Husking, winnowing, grinding of grains etc. were mostly entrusted to women. Women were employed in certain industries and female labourers working for wages probably existed. Thus in Vedic literature we meet with the words Upalaprakṣiṇī (woman employed in grinding corn), Vayitri, Peśaskārī (female weaver) Rajayitrī and Vāsaḥpalpūlī (woman employed in dyeing and washing cloths). In rich families Dāsis (slave girls or maid-servants) were employed.

III

EXISTENCE OF GUILDS

We come next to discuss the existence of guilds in the Vedic period. In the Ṛg-veda (V. 53. 11) the army of the Maruts is said to be divided into Gaṇas and Vrātas, the two words always meaning guilds or corporate-unions in later Sanskrit. Again, in the same book (X. 34), in connection with dice-play, we hear of leaders of Gaṇas and Vrātas. In the Yajur Veda (Vāj. Sam. XXIII. 19. 1) we have the word Gaṇa, besides Gaṇapati, which means the head of a Gaṇa. The evidence of these words which are not clearly and intelligently explained by the Indian commentators, goes to prove the existence of these organisations in the early part of the Vedic period. Coming to the Bṛhadāraṇyaka Up. we find the gods of the Vaiśya class described as divided into Gaṇas (Etāni devajātāni gaṇaśaḥ akhyāyante—gaṇaśaḥ-gaṇam-gaṇam—gaṇaprāyā hi Viśaḥ). In addition we have the word Śreṣṭhī meaning a man of consequence or more probably the headman of a guild, occurring in the Brāhmaṇas (Ait. Br. III 30. 3. ; Kaus. Br. XXVIII. 6). All these go to prove the existence of the guilds in the Vedic period. As yet, information about them is very scanty and we know nothing about their nature and organisation.

CHAPTER V

I

TRADE AND COMMERCE

The early part of the Vedic period or that preceding it, was an age of economic self-sufficiency and consequently there was little scope for an exchange of commodities. All the rural centres were self-supporting. Every house-holder produced the necessaries of life—his farm producing his food-grains and other necessaries, the industry of the women of his household supplied him with his clothing, while the craftsmen attached to the village did the rest. Consequently, there was no inter-dependence between two neighbouring local areas. The surplus produce was kept for future consumption. This state of full economic independence did not however last long. Society became complex. A large section of the community gave up the simple agricultural life; the primitive arts and crafts drew away a large number; owing to these and various other causes, there arose a scope for interchange of commodities between different local areas. Barter of goods, and later on, regular parchase and sale came to be introduced. The excess of production in certain localities induced energetic men to carry them to other places where these could be disposed of on profit.

Economic Self-sufficiency.

In this way there arose commercial enterprise, and we find mention of merchants even in the Ṛg-veda as well as the use of the verb Krī (-meaning purchase ; R. V IV. 24. 10).

But beyond this, the Ṛg-vedic evidence does not tell us anything. We know nothing as to the existence of markets,

though one passage suggests the existence of haggling (IV. 24. 9). The same speaks of sellers, who demanded, more price than that originally asked for (e.g., something more than that paid at the time of sale). The buyer on the other hand is represented, as insisting on the original price demanded and paid for, and is made to insist on the sanctity of contracts. (R. V, IV. 24. 9).

As to traders we have in the Ṛg-veda the words Vaṇij and Vāṇija (R. V, I. 112. 11 and R. V, 45. 6) denoting a merchant. In the Vāj. Sam. in connection with the Puruṣamedha the Vaṇij or merchant is mentioned as a victim (see Vāj Sam. XXX. 17 and Taitt. Br. III. 4. 14. 1).

Excepting their existence we know nothing of the Vedic merchants. The Vedic passages where the word Vaṇij occurs, tell us nothing about them, *i.e.* about the way in which they carried on business, their difficulties or the profits they made.

When however we come to the Atharva Veda, we have some information about early merchants and the commodities they carried for exchange. That book (V. 7. 6) mentions garments (Dūrśa), coverlets (Pavasta), and goatskin, (Ajina) as articles of trade. As to merchants the information supplied is really interesting, for. an Atharva Vedic hymn (e.g., III. 15) shows that the early merchant was an adventurous wanderer, who moving from place to place, risked not only his goods, but his life for the sake of gain He had to travel from one part of the country to another. His life was often jeopardised owing to the depredations of wild beasts on the way, and owing to the presence of robbers, who scrupled not to take the life of such people. Consequently, before starting, the merchant prayed to Indra "the merchant par excellence" (A. V. III. 15. 1), so that he might be his "guide and leader, chasing ill-will, wild beasts and highway robbers."

Vedic merchants.

The vedic merchant.

After this prayer for security he is described as turning to Agni and praying for "a hundred treasures" and craving pardon for "this stubbornness." He is then made to speak of "the distant pathway which his feet have trodden," and to call upon the gods to be propitious to him in order that there may be success in 'sale (Vikraya), barter (Prapaṇa), and exchange of merchandise' (Pratipaṇa),—that his invested capital (Dhanam) may grow more for him and his ventures may be prosperous.

The Vedic merchant, thus, seems to have been an adventurer, in search of gain. He sold, bartered and exchanged his goods for those of another locality. He appears to have been the fore-runner of the Svārtha-vāhas and caravan leaders of the early Buddhist literature and of the Jātakas.

The above hymn is used in the Kauśika sūtra (K. S, L. 13) for success in business.

THE PANIS:—In addition to these indigenous merchants of the Vaiśya caste, we have another class of merchants designated by the word Paṇi in Vedic literature (see R. V, I. 33. 3; X. 60. 6; A. V, 11. 7; Vāj. Sam. XXXV. 1.). According to the evidence ofVedic literature, the Paṇis were a rich and enterprising merchant class solely devoted to the cause of gain, either through trade or through usury. They have been designated Bekanāṭas or userers and Ṛg-vedic evidence shows that with the exception of a few of them like Bṛbu, they were the objects of popular dislike. According to Roth and Zimmer they were a niggardly merchant class who neither worshipped the gods nor revered the priests. Ludwig thought, that they belonged to the aboriginal trading class, while according to Hillebrandt they were the Parnians of Strabo. The identification and association of the Paṇis with Bekanāṭa (R. V, VIII. 16. 10 and Nirukta VI. 26) a word of foreign

The Paṇis.

origin (Babylonian or aboriginal ?) is noted by Macdonell and Keith in their Vedic Index. (I 472-3.)

The growth of trade facilitated the growth of standards and measures of exchange. In course of time a metallic currency grew and displaced simple barter, or the use of the cow as a standard of value. The machineries for measuring quantities came into existence.

BALANCE, WEIGHTS AND MEASURES :—The balance or the Tulā is mentioned in the Vāj. Samhitā (XXX. 17) and also in the Śatapatha Brāhamaṇa. In connection with the estimation of a man's good and evil deeds, or in connection with the balance ordeal we find it mentioned. Wooden vessels of definite size were used in measuring grains. Standards of weight were also invented. Thus, the Kṛṣṇala (berry of abrus precatorius) and Māṣa and some other grains were used as standards of weight in measuring precious metals. (Vedic Index. I. P. 185).

We have very little information about the inter-change of commodities of various localities. But any how there are indications that towards the close of the Vedic period, goods from the extreme west were sent to the east. The wool of Gāndhāra and Paruṣṇī were prized all throughout the land. Similarly the Atharva Veda which describes Guggula, as a product of the Indus or 'coming from the sea' points to the growth of a centre of maritime trade in the region of Sindh. The Śatapatha Brāhmaṇa describes (Sat. Br. XI. 5. 5. 12) horses as Saindhavas or coming from the Indus region (also Br. Ar. Up. VI. 2. 13). The Bṛhadāranyaka Upaniṣad (11. 4. 12) also describes salt as coming from the Indus.

II

MARITIME TRADE

MARITIME TRADE :—It is difficult to answer the question as to whether the sea was known to the Vedic Aryans or whether these people had any commercial intercourse with the other maritime nations of antiquity. We are dependent more or less on literary and circumstantial evidence and even then, the material at our disposal is very scanty. As we have said elsewhere the word Samudra, which in later texts always means the sea, occurs in the Ṛg-veda which also contains some references to voyages to the Samudra. Thus Ṛg-veda I. 25. 7., referring to the Samudra, speaks of Varuṇa's knowledge of the ocean-routes (Samudriyaḥ) along which ships sail. A second passage (1. 56. 2) refers to the Samudra in connection with the activity of merchants. Samudra is again mentioned in R. V, VII. 88. 3 and 4 which describes the voyage of Vaśiṣṭha and Varuṇa (in this passage the word Nāva occurs) In addition to this we have in the Ṛg-veda (R. V, I. 116 3 to 5) the story of Bhujyu, son of Tugra, who was sent out by his father to conquer certain enemies. While at sea his vessels were disabled and he with his followers were on the point of being drowned. But he prayed to the Aśvins who, heard his prayers and sent him home in a vessel of one hundred oars (Śataritram nāvam).

Literary evidence

As to the meaning of the word Samudra occurring in the passages mentioned above, some scholars are of opinion that Samudra meant not the sea but only the

"lower course of the Indus which after receiving the waters of the Punjab rivers is so wide that a boat in mid stream is invisible from the bank" (see *Macdonell.* Hist. of Sans. Lit. p. 143) In their Vedic Index, Macdonell and Keith have discussed this question and cited the opinions of various scholars e.g. those of St. Martin, Lassen, Max Müller, and Zimmer, (Vedic Index II. p. 431-38). They have summed up by saying "that there are references to the sea (R. V, I. 47. 6 ; VII. 6. 7 ; IX. 97. 44. etc), perhaps to pearls and the gains of trade (RV, I. 48. 3 ; V. 56. 6) and the story of the ship-wrecked Bhujyu seems to allude to marine navigation." (The legend of Dirghatamas may be added.). This view is reasonable and ought to be accepted by all

As to the existence of trade-relations between India and Babylonia or any other country of the ancient world, we have no definite or positive information, but there are circumstantial evidences which throw light upon the contact of nations in antiquity, and go to prove that there existed some sort of intercourse between India on the one hand, and Assyria Babylonia and some other countries of the ancient world, on the other. The similarity between some of the oldest Vedic Myths (compare the story of Manu and the accounts of the Deluge in Vedic and Babylonian literatures) and those of Sumeria, the recent discovery of the records of the settlement of some branches of the Aryan race in Syria and Sumeria worshiping some of the oldest gods of the Vedic pantheon (see the accounts of the Mitanni and of the Kassites in Hall's Ancient History of the Near East pp. 201-230), the recent discovery of some clay-seals bearing cuneiform inscriptions found in Southern India, the discovery of the presence of Indigo in the clothes of some of the Egyptian mummies, the importation of Sonter-incense (Candana ?) by the Punt (Puanit) expedition in the reign of the Egyptian Queen Hat-sep-situ, the

Circumstantial evidence.

discovery by Rassam of Indian cedar in the palace of Nabuchadnezzar, and of Indian teak in the temple of the moon-god at Ur refounded by Nebonidus—all these point to the existence of an intercourse between India and some of the nations of antiquity.[1] Perhaps this connection existed from pre-historic times when the sturdy navigators of ancient India, whether Aryans or Dravidians, made voyages to the West or to the Eastern archipelago or even further beyond. Mr. Hall in his early History of the Near East, discussing the question of the origin of the early Sumerians expressed the view, that these people were a branch of Dravidians of Southern India, who migrated to that region either by land through Persia or by the sea (see Hall, P. 173-74). We may not accept this view of Mr. Hall but the recent excavations in Mohendjo-Daro throw light on the probable Indo-Sumerian intercourse on the Indus valley and confirm this race-contact of the past. As yet the time is not come when we may form any definite opinion on the subject and we are to wait until the labours of those scholars engaged in the study of the history of the Assyrians, the Babylonians, the Elamites, the Kassites, the Mitannians and the Hittites, have succeeded in placing before us some definite evidence which alone can help us in solving the problem. But this much is almost certain that maritime intercourse existed between Vedic India and the contemporary ancient world.

The recent discoveries.

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[1] J. R. A. S. 1898.—article by Kennedy.

CHAPTER VI

I

EXCHANGE—ITS METHODS AND MEDIUMS

In the earliest period of the history of human culture, all exchange was by barter i. e., the exchange of one article for another. This was the stage of simple barter. Next to it we have generally a second pre-metallic stage, in which the medium of exchange is some article commonly found and being valued for its utility, becomes the measure of value. In the history of various races, we find the existence of such standards. Thus in Homer we find the use of oxen as standards of value. Gardiner the author of the history of "Ancient Greek Coinage," illustrating this point quotes the Homeric lines "Arms worth a hundred kine for arms worth nine." In the laws of Rome, fines were assessed in oxen. The cow was the standard of value in Rome, and thus came the word Pecunia, (originally meaning cattle) to mean money in which sense it is used in later Latin literature. In addition to the cattle-standard we know of the use of cubes of tea in modern Turkestan, of shells in India and China,

Primitive exchange.

of yards of cloth in modern Africa, as standards of value. According to Walsh the author of the history of Metallic Currency, the pastoral nations of Central Asia still use cattle for this purpose. Tacitus tells us that the Frisians used to pay tribute to the Romans in hides of bulls (uri) and when the latter

demanded bigger hides this led to a war between the two nations (see Del Mar ch. I).

The use of these above-mentioned standards of value gave rise to difficulties, owing to the inconveniences caused by them. Thus in the case of the cow, variations in size or quality must give rise to difference in value. Consequently we must expect to find some more specifications as to the age, size, or milk-bearing capacity of the cow. In the Brahmaṇas we find (Ait. Br. p. 59 Haug's Trans) that in connection with the buying of Soma, a cow one year old and immaculate is put down as the standard price for Soma. In addition to this, there would be hardly any provision for the measurement of fractional parts i. e, half the value of the cow or a quarter of the same. The difficulty that arose between the Romans and the Frisians has already been referred to.

To solve these difficulties and to have a more convenient and portable standard, the use of the precious metals was introduced. In the earlier stages of the use of precious metals we have bars, ingots or lumps of gold and silver, of certain standard weights used as money These had peculiar shapes and marks in different countries. Thus according to Walsh, (p. 7), in Greece the oldest coins were stamped with the figures of animals. The same was the case in Egypt, where we find figures of the cow or of other animals in gold or silver used as standards of value. In this stage weight and fineness were always taken into consideration. After this stage we have the issue of private coinage and that came to be succeeded by the use of coins issued and regulated by the state.

The three stages in the Veda .

From the evidence of the Vedic literature we find the existence of these three stages. There is not only simple barter proved by the evidence of the words—Pratipaṇa or Prapaṇa, meaning commodities received

in barter or exchange (A V. III 15. and XII. 15. 4), but the use of the cow-standard in addition to that of gold and silver money. As to the use of this cattle-standard, Macdonell and Keith cite an instance from the Ṛg-veda in which an image of Indra is obtained by giving ten cows. According to them, this proves the existence of simple barter. In reality, this shows the growth of an idea of a standard of value and the use of cows for this purpose. According to the Brāhmaṇas, as we have said already, Soma was purchased with a cow one year old and immaculate.

Besides the use of the cow there was the use of gold and probably of silver money. The use of metallic currency has already been mentioned and we pass on to the history of its use and gradual development.

II

USE OF GOLD AS MEDIUM OF EXCHANGE

The question of the use of gold pieces as currency (or medium of exchange) in the Vedic age, is one which has given rise to a controversy which is far from being ended. But the topic is an important one and requires a careful consideration.

Before we enter into a discussion of the views of different scholars we summarise the evidence here :—In the Ṛg-veda we have repeated mentions of the word Niṣka, a word which in later Sanskrit means a gold coin ; the word Mana (supposed by some to be akin to the Akkadian Mina) also occurs in the same book (R. V, VIII. 78. 2). Both the words are of doubtful etemology. The exact meaning of Niṣka is hardly clear and it is used in more senses than one. Of the prominent passages which contain this word Niṣka we quote a few here,

1. In R. V, I. 126. 2, a sage Kakṣīvn praises his patron Bhāvayavya of the Sindhu country, for the gift of "one hundred kine in addition to one hundred Niṣkas as a reward for his services." (Śatam ragño nadhamanasya niṣkā-cchatam aśvān prayatān sadya adam śatam Kakṣīvān asurasya gonām divi śravo'jaramā tatāna.)

2. In II. 33. 10 of the Ṛg-veda, the god Rudra is described by Gṛtsamada as wearing a neck-ornament of Niṣkas, which are described as Viśvarūpa. (Arhannivarsi sayak ni dhanvarhan niṣkam yajatam viśvarūpam.)

3. Again in R. V, VIII. 47. 15, the goddess Uṣas is invoked to take away the evils of bad dreams from those who wear "Niṣkas" (Niṣkam vā dhā kṛṇavate srajam etc.)

4. In R. V, V. 19. 3, in connection with a hymn to Agni we are told of sacrificers wearing Niṣkas. (Niṣkagrivo bṛhaduktha.....vājayuḥ.) Here the word Niṣka-grīva has been explained by Sāyana as Niṣkena Suvarṇena alaṃkṛitā grīvā.

In many passages of the Atharva Veda, the word Niṣka is used. (A. V, V 14. 3; V. 17. 14). There too in one place (XX. 131. 8.) we hear of a gift of one hundred Niṣkas (śatam niṣk hira yayā) of gold.

Later on references to the Niṣkas are many in the Brāhmaṇas and the Upaniṣads. It is needless to quote all these passages. Some only may be cited. Thus the Aitareya Brāhmaṇa contains a reference (VIII. 22. Niṣka-kaṇṭha) to a man with a Niṣka-garland. Again in the Pañcaviṃśa Brāhmaṇa, a Vr tya is described as wearing a silver Niṣka. So much for the word Niṣka.

Apart from Niṣka the word Manā, appears in one passage of the Ṛg-veda (VIII. 78. 2.) where a priest Kaṇva enumerates the gift of one hundred kine, along with some gold Manā.

Besides these Niṣka and Manā, we find mention of lumps of gold (Hiraṇyapiṇḍa) which are given away to priests or to other people. To quote one such passage, we find in Ṛg-veda VI. 47-23, the priest Garga—extolling the gifts of Prastoka and of Divodāsa to him. Among other things enumerated he speaks of "ten purses" and "ten lumps of gold" along with ten horses and some other articles. (Daśāśvān daśa kośān daśa vastrādhibhojanā daśo hiraṇya-piṇḍān Divodāsā dasāniyam—VI. 47. 22. and 23). Here the use of the words Kośa and of Hiraṇya-piṇḍa is significant. The first apparently signifies purses full of gold or silver, while the second expresses in clear terms, the gift of ten lumps of gold.

We have thus summarised, the evidence of passages in

which the words Niṣka and Man occur, in addition to those speaking of gold purses or lumps. At first sight, the evidence seems rather scanty and rather inconclusive, but when we take into account other evidences available, we are bound to come to the conclusion that gold was plentifully used; that the Niṣkas, seem to have been generally valued as neck-ornaments; but in some passages they are something more—they were nothing but gold and silver-pieces of definite weight and were used as money.

That they were gold-pieces in circulation, is supported by later Indian evidence but in regard to their use in the vedic period there is a difference of opinion amongst scholars. The majority of European scholars are disposed to think, that, in that very early period the use of gold and silver money was not known. Some of them go so far as to deny the existence of gold and silver currency in India prior to the contact of Indians with foreign nations. Thus, Prinsep attributed the rise of coined money in India to the Greek contact and H. H. Wilson too once leaned to the same view. (Ariana Antiqua. 404). Kennedy, held the view that the earliest Indian coins were copied—from the Babylonian originals after the Hindus came into contact with these peoples in the seventh or sixth century B. C. Vincent Smith entertained practically the same view. The late Professor Max Müller too, himself a Vedic scholar of repute, tried to prove the same and made the ludicrous assertion that the Vedic Niṣka was so called after Kaṇiṣka, (not the Kuśāna Kaniṣka) which was the surname of some ancient pre-Vedic king. With this spirit of an a priori assertion, based not on reason or evidence, we have nothing to do. Almost all of them admit the use of word Niṣka, which in later literature always meant pieces of gold of definite weight, but explain its use in the Vedic

European opinion.

literature in the sense of nothing but ornaments of gold, *e.g.*, gold-necklaces.

In this connection it must be admitted that the evidence of some of the passages quoted above, point to the use of Niṣkas for the purpose of ornaments and in this sense they have been taken by Sayana. (Cf. Niṣka-grīva-wearing a necklace R. V, V, 19. 3). In other places however, this meaning is hardly applicable, and if we take this sense, it will bring in absurdity. Thus in R V, I. 126. 2, where the singer celebrates the gift of 100 Niṣkas, the meaning necklace, hardly appears to be appropriate. A man cannot require a hundred necklaces to adorn himself. There the word can only mean some standard weight of gold in common use. Macdonell and Keith, who would otherwise have regarded Niṣka to be a gold ornament worn on the neck, take the evidence of this passage into consideration and sum up in the following way—"As early as the Ṛg-veda, traces are seen of the use of Niṣka as a sort of currency. For, a singer celebrates the receipt of a hundred studs and a hundred Niṣkas. He could hardly required the Niṣkas merely for purposes of personal adornment." (Vedic Index, I. 455.)

The truth about Niṣka, thus appears to be, that they were pieces of gold of definite weight and were used as medium of exchange. That they were used as neck-ornaments can be easily explained as being due to the Indian tendency of making necklaces of gold and silver coins. We have inumerable examples of this in Indian literature, and even now we find such necklaces of gold coins being used among the rich. Poorer people including labourers or even scavengers often make necklaces of coins, which not only serve as ornaments but form their savings.

An accepted standard.

Thus, the view that the Niṣkas were gold or silver pieces of different weight and value, is confirmed by the evidence cited above. The existence of a money-standard in general acceptance, may be further proved by other evidences. Thus some passages speak of gifts of precious metals without enumerating any standard. These gifts of so many pieces do undoubtedly refer to some definite standard in general acceptance, since, without such a standard in general acceptance, we can hardly expect the mention of mere numbers without any further specification. To quote instances of such gifts without specification of standard, we find the following important passages. Thus Ṛg-veda V, 27. 1, speaks of the gift of 10,000 pieces by king Tryaruna (Traivṛṣṇo Agne daśabhiḥ sahasraiḥ Vaisvānara Tryarunaściketa.—R. V, V. 27. 1 and 2; note the words Daśāvis sahasrais and śatā), the son of Tribṛṣṇa. The second verse of the same Ṛg-vedic hymn speaks of another such gift of a hundred in addition to other things (To me śat ca vimśatim ca gonām etc.).

Again, in R. V, VIII. 6. 46 and 47, the sage Vatsa, praising the munificence of king Tirindira speaks of his bestowing of a hundred and a thousand and other gifts of money and kine (Śatamaham Tiṛindire sahasram parśā vā dade rādhamsi yādvanam. Trīni satānyarvatām sahasrā daśa gon m dadus pajr ya s mn).

It is needless to enumerate more such passages. Any how all these may be undoubtedly taken to refer to some standard, and this standard seems to have been so common and well known, that the priests did not take the trouble of mentioning it.

Wilson in his translation of the Ṛg-veda noted this point and made the observation that "it is not impossible however that pieces of money are intended, for if we trust Arrian, the Hindus had coined money before the days of Alexander"

As for ourselves, we need not go to the time of Alexander, for long before that period the Buddhist books mention Niṣkas and Suvarṇas of gold. In the 4th century B. C. too, according to the evidence of the Artha-śāstra the Niṣka was a gold coin issued and regulated by the state.

The Niska.

The Niṣka therefore appears to us as meaning a metallic medium of exchange. This view would appear not only reasonable but will go to explain the meaning of passages where the word occurs. The passages which contain references to the wearing of Niṣkas (as necklaces) may be explained as pointing to the use of Niṣkas for ornamental purposes, a custom still in vogue in modern India. Moreover, when we examine the social and economic condition of the Vedic period, it appears almost impossible that a society highly developed, with abundance of gold and silver, and in which there were various kinds of money-transactions (loans and debts on interest), did not know the use of precious metals for money transactions.

Niṣkas were both of gold and silver. We have no reference to their weight until we come to the later Smṛti works or to the Artha-śāstra. These works though later, seem to have preserved the old tradition. The weight of the Niṣka as given in Viṣṇu, Yāgñavalkya and Manu (though differing from that given in the Arthaśāstra) was equal to that of four Suvarṇas, which was equal to $80 \times 4 = 320$ Kṛṣṇalas.

Thus says Manu (VIII. 135)—

Pañcakṛṣṇalako māṣaste suvarṇāsca śoḍaśa.
Palam suvarṇa-catvāraḥ palāni dharaṇam daśa.

Yāgñavalkya speaks in similar terms. Viṣṇu also says (IV. 10) that a Niṣka was equal to four Suvarṇas (Catuḥ suvarṇako Niṣkaḥ.)

Apart from these Niṣkas, two other metallic standards

of gold and silver came into use during the close of the Vedic period. Of these, the first was the Kṛṣṇala—a bit of gold equal to the weight of a Kṛsṇala. This would appear from the evidence of the Kaṭhaka Samhitā and of the Taittirīya Samhitā. The first named work refers to a gold Kṛṣṇala (XI. 4—*e. g.* Hiraṇya-kṛṣṇala). The other work (see—Taitt. Br. 1.3.6.7) mentions the gift of one Kṛṣṇala each, to the participators in a race. It is mentioned also in the Taittirīya Samhitā (II. 3.2.1.) and in the Maitrāyani Sam. (ii. 2.2).

Kṛṣṇalas and Śatamāna.

As to the Śatamana of gold, it is repeatedly mentioned in the Kaṭhaka Samhitā and the Śatapatha Brāhmaṇa. It was evidently a gold piece of the weight of 100 Kṛṣnalas. In the Śatapatha Brāhmaṇa, in connection with Rājasūya, we are told of the fastening of the round (vṛtta) Śatamānas, behind the hind-wheel of the cart-stand and these were then directed to be given to priests. (śat. Br. V. 4. 3. 24). Many other passages (XII. 7. 2, 3,; XIII. 2. 3. 2) contain this reference to the Śatamānas, which were given as fees to the Brāhmaṇa priests officiating in the sacrifice. The Śatamānas, were one of the principal metallic standards used in India, especially in those regions where the Black Yajurveda and the Śatapatha Brāhmaṇa, were composed. Later authorities like Paṇini, Manu and Yāgñavalkya, refer to these Śatamānas which were both of silver and of gold. (see Manu VIII. 135 to 138 and Yāgñavalkya I. 364-366).

STAMPING :—In conclusion we may sum up that the above mentioned metallic pieces, were in large circulation in the various regions of India. Whether, they were coined money in our sense and bore any stamp is yet to be decided. Dr. Thomas in his article on Weights and Measures (vide Numismata Orientalia) took the word Viśvarūpa to mean "pervaded or covered with forms and symbols" instead

of "omniform" as suggested by others, and thus tried to prove that the Niṣkas were stamped and bore inscriptions. This is however going too far, and we cannot as yet base our conclusions on the evidence of a single word. The practice of stamping symbols, is rather late in the history of money, and as far as India is concerned this may be taken to hold good. Most probably the weight and fineness of these determined their value.

In connection with the circulation of these as well as in all transactions with regard to gold—the Kṛṣṇala came to be regarded as the primary standard of weight. The evidence of the Śatapatha Brāhmaṇa seems to point to the acceptance of the Pāda—($\frac{1}{4}$) as a standard (Śatap. XIV. and Bṛhadā. Upa. III. 1.1. etc.).

SOURCES OF GOLD :—As to the sources of gold, very little is known. But this large circulation shows that there must have been sources of local supply. Even the Dravidians and Aborigines are spoken of as owning gold in the vedic hymns.

Keith and Macdonnell are of opinion that in those days gold was obtained from the bed of the rivers (Vedic index II. p. 504). They think that the extraction of gold from earth was known (R.V. I. 117. 5. A.V. XII. 1.6.). Washing for gold is recorded (Taitt. Sam. VI. 1. 7. 1 ; and Satap. Br. II. 1. 1. 5).

Survival of earlier standards

The use of gold and silver however, did not abolish or put an end to the use of other standards of value, and the cow served this purpose for a long time. According to the Dharmasūtras, fines for murder (Vaira) continued to be assessed in kine. Paṇini, too, mentions the purchase of articles (with cows) in terms of the cow. Thus in his Sūtras we find the word Pancagu (any thing purchased with 5 cows). Barter existed for a long time and even during the period of the composition of the Jātakas, rice was used as, a standard of value.

CHAPTER VII

I

SOCIO-ECONOMIC LIFE IN THE VEDIC AGE

The hymns of the Ṛg-veda and the later Samhitās, give us pictures of different stages of social progress. The absence of proper landmarks, as well as the difficulty in differentiating the srata stand in the way of separating these various phases of social evolution. In spite of this however two distinct phases of economic life can be distinguished e.g.

Two distinct stages.

(1). During the earlier of these two stages the nomadic instinct predominated. The tribes were more or less in a migratory condition; villages and settlements moved from place to place. In such a state of life cattle-rearing remained the chief occupation of people though agriculture during the period of temporary settlement was not altogether neglected. Constant wars, either with the aborigines for self-existence, or internecine feuds continued. Victory in battle not only ensured life and existence, but brought in the wealth of the conquered and consequently added to the prosperity of the community.

(2). This state of existence was gradually supplanted by a more settled condition of life. Agriculture became the chief feature of social life. Everybody took to agriculture excepting perhaps the warrior or the priest, who accompanied the conquering host. Villages were established in the midst of the fertile conquered country—the conquered being pushed back either to the hills, or allowed to live a life of servility on conditions of submission, service or tribute.

Land was plentiful. The conquering tribes were hardy and vigorous. They were as yet not imbued with any high notions of personal dignity. Labour was not distasteful to them. In such a state of affairs, their progress was rapid. The whole fertile plain of Northern India was appropriated and colonized. Villages were established all over the country.

Village life.

Each village contained a number of families; each family contained a number of able bodied workers, who either had joint interests in the field, or worked under the authority of the head of the family i. e., the Gṛhapati—the lord of the house.

The Gṛhapati, whether the eldest male member of the agnatic group or simply the father of the children, was the master of the house, who exercised control over the family superintended their working in the fields, and performed also the sacrificial duties of the home.

II

THE VEDIC HOUSE.

Each one of such families possessed its own separate dwelling. The Vedic house variously designated as Kṣiti —Dama, Pastyā, or Harmya, was so constructed as to suit the needs of a people whose main occupations were agriculture and cattle rearing. Generally it was a walled-up enclosure containing not only apartments for the family, but room for the sheep and cattle, so valuable to the Vedic householder. We get a good description of the Vedic house from the Atharva Veda (see A.V.III. 12 ; A.V.IX.3.) which gives us not only description of the house, but tells us of the contents of the house. In the Gṛhya-sūtras we find directions laid down as to the choice of the ground on which the house was to be constructed. In the Ṛg-veda, Atharva Veda and the Kauśika Sūtra we find innumerable prayers offered to "the God of the house" or to the "Queen of the house" for the sefety of the house and the prosperity of the family dwelling therein.

Vedic House.

From the description in the Atharva-veda IX. 3 which concerns itself mainly with the consecration of a newly constructed house, it appears that the house of the Vedic Aryans stood in the midst of a walled up enclosure. It was constructed mainly of bamboo and wood. Perpendicular posts or vertical pillars (Upamit) were set up on the ground and there were cross-beams (Parimit). Bolts and ropes were used for fastening the poles. The roof was formed with bamboo poles and was thatched with

straw or with mats of reeds. The Atharva Veda (IX. 9.) describes the house as grass-covered and straw-clad. The extensive use of wood, bamboo and straw, is further proved by innumerable prayers which we find in the Atharva Veda against the ravages of fire which readily consumed these materials, and thus put the family in a state of destitution and helplessness. In this connection the material used by Indo-Europeans in constructing their houses is worthy of comparison. According to Schrader the early Indo-European houses were built of wood, basket-work and loam and not of stone (see Schrader. Pre. Hist. Ant. P. 342.).

The house generally contained several apartments. One was reserved for the sacred fire (Agniśālā). Some were reserved for the women of the house (Patnīnām Sadanam) or for other members of the family. In addition to these, there was a big store-room or Śālā full of clear corn (Pūti Dhanya) and sheds for sheep and cattle. In the Atharva Veda (III. 12) the owner of the house speaks of his sheep, goats and cattle. The house itself is described as a spacious store full of clean corn. Rooms were furnished with Śikyas for hanging vessels and contained the necessary furniture e.g. wooden chairs, bedstead, the pestle and mortar, the winnowing basket, spoon, ladle, fork, wooden tubs, and earthen pots etc.

In every house, guests were welcomed and attended to.

Description of the house.

The Atharva Veda(IX.6.)mentions an Āvasatha in this connection, but it is difficult to determine whether it was a big apartment set apart for that purpose. This was the Vedic house of simpler construction used by poorer householders. Most probably richer people and princes lived in more comfortable dwellings made of stone or other materials. They seem to have employed door-keepers and a large number of attendants (A. V. IX. 6). In the Ṛg-veda we find mention of forts of stone and houses

of three materials (R.V. VI. 46. 9) and in another place we find mention of a house with 1000 pillars (R.V. V.62 6). But from this we cannot form any opinion as yet. The use of brick came into vogue during the time of the later Samhitas. Brick—both burnt and unburnt were used for constructing fire-altars or pillars (see Yajurveda XIV; Taitt. Sam.; and Śatap Br.)

The Vedic householder regarded his house as his stronghold and was intensely attached to it. The house was supposed to have its own presiding Deity and his favour was constantly sought.

The householder's devotedness to his dear home is amply expressed in a hymn of the Artharva Veda (see A.V VII. 60) in which a parting traveller bids adieu to the houses of his village, in terms which amply express his warm attachment to his own house and the comforts dwelling therein.

HOUSEHOLD FURNITURE AND IMPLEMENTS.

As to house-hold implements, utensils and furniture, we get some interesting details from the Atharva Veda (A. V. IX. 3 and A.V.IX.6). Of implements, there we find mention (apart from those used in sacrificial purposes) of the pestle and mortar made of stone, the winnowing basket, the spoon, the ladle, the fork, the stirring prong, cooking pots and jars (Droṇa-kalasa), vessels (Pātrāni) made of metal, wooden tubs, and various other things made of khadira or udumvara wood. Of other furniture, we have the Āsandī which according to the Atharva Veda and the Brāhmaṇas was a rocking chair, made of wood and cordage. the Proṣṭha or lying bench for women, the bedstead, the pillow (Upabarhaṇa, coverlets) (Upastaraṇa Upavāsana) cushions and mats made either of grass or of kusa, antilope's skin and such other articles. In the Kauśitakī Up, we find mention of the Paryaṅka and later on of the Preṅkhā (see Kathaka XXXIV. 5, Panch. Br. V.5.7 Dolā).

III

FOOD

FOOD :—From the above two hymns, in addition to scattered references elsewhere, we get some interesting details about the food and drink of those days. In connection with the food of Vedic Aryans the following may be mentioned :

(1) The milk (Payas) of the cow, goat, and buffalo was used. From it various preparations were made. Fresh milk (Payas) and mixed milk (Payasyā), are separately mentioned, as also butter (Navanīta), creamy butter (Phāṇṭa), Ghṛta, and curd (Dadhi). Goat's milk is mentioned in the Taitt. Sam. (V. 1. 7).

(2) Various preparations of rice, barley and wheat and other food grains and cereals were used. Thus, barley, rice, or wheat were either parched or boiled in water or soaked in butter. Of fried grains we find mention of Saktu, Parivāpa, Lāja. Wheat, barley or rice were often crushed powdered or boiled and made into various kinds of bread or cakes along with milk and other ingredients. Of such we have the Piṣta, Purodāśa, Apūpa, Pakti. Rice was often boiled in milk and this kind (Kṣīraudana) of food was highly valued. Brahmaudana was offered in the sacrifices (A.V. IV. 35.7, XI.1.1 Taitt. Sam. III. 4.8.7). Other varieties of mess were used and we have mention of Dhadyaudana, Mudgaudana, Tilaudana, Udaudana, Ghṛtaudana, Māṃsaudana.

Varieties of food.

3. Meat. The Aryans seem to have been fond of meat-eating. The flesh of sacrificed animals e.g. of the cow, the buffalo, the sheep, goat, and occasionally of the horse, was

taken by all classes of people. In addition to these, the flesh of hunted animals and of various birds was taken. The taking of beef or the flesh of the buffalo or the horse gradually came into disfavour. Meat boiled with rice (Mamsaudana) was highly prized. The question of beef-eating has been discussed separately, in connection with the cow. Moreover, various kinds of fruits and vegetables and honey were also largely used.

4. Fish :—We hear very little of fish-eating in the early Samhitas, though in later periods fish-eating was not condemned. Far from that, fish was regularly prescribed as food and was offered to guest and the manes.

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IV

DOMESTIC LABOUR AND HOUSEHOLD ECONOMY.

As the Gṛhapati looked after agriculture and the farm, many of the household duties were entrusted to the women of the house. The Gṛha-patnī (or the Gṛhapati's wife) was an 'alter ego' of the husband and assisted him in the management of the affairs of the family. The evidence of the marriage-ceremonial shows, that assistance in household affairs was considered part of the wife's duties. She took part along with her husband in ceremonials and sacrifices. The Atharva-Veda (XII.3) shows how they joined in offering sacrifices and how she had often to take care of the household fire.

In matters of domestic economy, the wife had supreme voice. In the marriage-hymns she has been described as the Samrājñī in her father-in-law's household. Philological evidence shows that in more ancient times it was the mother (Mātā) who distributed the food, while the daughter (Duhitā) engaged in milking kine. Similar duties were entrusted to the other ladies of the household. Weaving or plating was once entrusted to women. This is proved by an old simile which represents day and night as two women engaged in weaving and which has been already referred to. Again, the marriage hymn (A.V, XIV.1.48) which speaks of goddesses wearing garments (see A.V, XIV. 2.51) refers to the soft touch of the garments woven by the bride. Cooking was left to women, as is proved by many passages of the A.V, (XII. 3-4), and by the evidence of the Taittirīya

Labour of women.

Samhita (V.I. 7). That the wife had to partake of the husband's burdens and household-duties, seems to be suggested by some of the passages in a marriage-hymn of the Atharva Veda. For instance, we read :

"Blest be the gold to thee, blessed the water, blessed the yoke's opening and blessed the pillar." (XIX.1—RV, X.85).

Here, the yoke's opening stands symbolical of agricultural operations, while the blessed pillar refers to the wife's participation in the work of the threshing floor. Husking, winnowing and many other similar duties were entrusted to women, though towards the close of the Vedic period slave girls and slaves were employed (see A.V, XII.3.13). The tending of the cattle, while at home, was part of the housewife's duties as would appear from a passage of the marriage hymn, in which Vṛhaspati is asked to make her gentle to the cattle.

All these marriage hymns end with prayers for the long life of the married couple, and we have prayers not only for prosperity, devotion to the husband, but also for children, so that these when grown up might assist their parents.

The labour of women thus played a prominent part in domestic economy. Consequently, in the Vasor-dhara hymn, we meet with the prayer that women might become industrio .

V

THE VEDIC HOUSEHOLDER'S CONDITION

From a study of the Vedic literature it would thus appear that the average Vedic householders lived a life of self-sufficiency. With the exception of the princely warriors or the sacrificing priests—high in the favour of the former, the mass of Vedic householders, depended mainly on their own exertions.

Every man had his farm and cottage. He worked his own fields ; the agricultural products supplied the requirements of the family, and his chief wealth consisted of his cattle.

Life was simple. There was very little of luxury, as well as of scarcity. A man's wants were few and his own exertion placed him above want.

No luxury no want.

But this state of affairs did not last long. Conquest brought in wealth. Luxury invaded society, gambling, or want of thrift reduced families to poverty, and much of this wealth passed into other hands. Capitalism came to be introduced. Usury came to be the occupation of the rich. The merchant made large profits; the normal distribution of wealth was checked. Money came to be accumulated in the hands of the few. The land-less and homeless poor, had to live either by begging or had to take menial service. Craftsmen protected their own interests by forming unions.

As to the growing complexity of social condition, we find indications throughout the whole of the later Vedic

literature. In this connection the following points are to be noted.

(1) Growth of capitalism--proved by the existence of debts and usury and the growth of banking.

(2) Growth of a landed aristocracy.

(3) Growth of social inequalities.

VI

CAPITALISM

Gradual change.

Capitalism grew. Its growth was facilitated by various circumstances and by various causes. Apart from the tendency to accumulation in the case of thrifty individuals, this was helped to a certain extent by the existence of freedom of disposal of property.

Disposal of Property.

There was very little of restrictions on transfers, whether of chattels or of real property. A study even of the Ṛg-vedic hymns shows that from very early times, men enjoyed a certain amount of freedom in the disposition of their property. Sale of houses or lands either to a purchaser, or for the sake of satisfying debts to creditors, was allowed even in those days. The evidence of R. V. (X. 34) shows how a man could spend his whole fortune even for gambling.

In the case of heads of families, they were most probably unfettered in the matter of disposal of their property. As long as they lived they exercised some control over their children, but this authority of the head of the family never approached that of a Roman 'pater familias.' Children could divide in the very life-time of their father, and this added much to the freedom of disposal of property.

Money Dealings; Debts.

DEBT :—The religious literature supplies us with very little information as regards money dealings. But in spite of this, we know something about these. Even from the

evidence of the Rg-vedic hymns, we find the existence of money transactions.

In that book we meet with the word Ṛṇa, meaning debt. Debts were contracted for various purposes, gambling being one of them (R. V. X. 34. also A. V. VI. 119. 1). It often reduced men to slavery. Debtors were bound by the creditor, and according to some they were fastened to posts to be exposed before the public, pressure being thus put on them for re-payment (R. V. X. 34). The Ṛg-veda contains references to the repayment of debts (R.V. VIII. 47. 17), and in the Atharva Veda we have prayers to the gods for absolution from sin arising from non-payment of debt. The information supplied by three hymns of the A.V, is of interest in this connection (A. V, VI. 117, 118, 119).

Sin arising out of debt.

In the first, absolution from the sin arising out of debt is asked for. Some passages are really significant and show how in those days non-payment of debt was regarded as a sin which brought consequences in the other world. The reciter expresses his willingness to 'throw away the grain to pay his debt' and prays further.

"May we be free in the world and that yonder.
In the third world may we be un-indebted.
May we debt-free, abide in the pathways, in all the
Worlds which gods and fathers visit."

The next two hymns ask forgiveness for cheating and incurring debt in dice-play. The last one contains a clear reference to an intention of non-payment, and shows how the moral idea came to be masked by motives of deception. The Kauśika Sūtra directs these three hymns to be uttered on the occasion of repayment of debts, or on the decease of the creditors. The Atharva-Veda makes a reference to the creditor's wife (A.V. VI. 118) to whom, probably, the debtor was liable to pay on the demise of her husband,

The consequences of debt told heavily on the debtor, and consequently on society. The evidence of R.V, X. 34, shows that the debt for gambling reduced people to proverty. Everything was exacted, even the dwelling houses were sold, and men became homeless and destitute.

Consequences of debt.

In some passages of the Ṛg-veda and Atharva Veda, there are references to interest, but we know nothing about the rates of interest. The Ṛg-veda contains the word Bekanāṭa which according to Yāska means a usurer. According to the interpretation suggested by some passages of the Ṛg-Veda, (R.V. VIII. 47.17 and A.V. VI. 46.3) the rate seems to have been one eighth or one sixteenth (V.I., II. p. 109). In the Atharva Vedic passage, which occurs in a hymn to avert the bad consequences of evil dreams, the citer assigns the evil to the enemy with an addition of 1-8 or 1-16, as in the case of repayment of debts. With the growth of capitalism a new class i.e. of usurers arose as is proved by the evidence of the word Kusidin. Probably the rate of interest became heavy, and consequently we find a denunciation of the usurer in the Dharma Sūtra literature, where we find attempts to fix rates of interest.

BANKING :—Money accumulated unquestionably in the hands of the rich, but we have no clear reference to organised banking or banking transactions. The word Śreṣṭhin, meaning a man of consequence, occurs in the Brāhmaṇas (Ait. Br. III. 30.3; Kausit Br. XXVIII.6; Kaus. Upa. IV. 20 etc.). According to the Taittirīya Br. (III. 1. 4.10) Bhaga was the Śreṣṭhī of the gods. As to the real meaning of the word, we have differences of opinion. Hopkins is inclined to take it in the sense of a modern Seth. Macdonell is inclined to believe that the Śreṣṭhī was the headman of a guild.

VII

DEVELOPMENT OF A LANDED ARISTOCRACY

LANDED CLASS—In the earlier stage of simple agricultural life every house-holder owned his plot of land, tilled it, lived a life of simplicity, and practically supplied his own needs. In those days there was hardly anything like a landed aristocracy. The king of the tribe could of course claim his Vali or tribute (see R.V,X. 173), but there is practically no evidence of inter-mediatory landlords. Gradually, however, a class of landed aristocracy arose and this may be attributed to :

(1) The custom of granting villages to faithful servants by the ruling princes, a practice common to all ages and countries. Of this we have no direct evidence, but we may presume that such gifts were common, since princes thought of strengthening their own position by creating a band of faithful adherents.

Growth of land-lords.

(2) The grant of villages to sacrificing priests or Śrotriyas. We have no early Vedic evidence, but later we find one instance of a gift of a village by Jānaśruti to Raikka, when the latter agreed to teach him the Deity he worshipped (Chan. IV. 2.4.). Such gifts were indeed common, and out of such gifts arose the class of rich Brahmin landlords—the Mahāsālas or Mahā-śrotriyas, first mentioned in the Chandogya Up., who were so common in the early Buddhist Sūtras, where they are described as enjoying the revenue of villages.

(3) The acquisition of superior rights by men of merit over equals. As to these people we have no evidence either in the Ṛg-veda or the Atharva Veda. But when we come to

the Taittirīya Samhitā or the Maitrāyaṇī Samhitā, we find in connection with special sacrifices, the various rites for gaining mastery over villages. We have directions for the propitiation of Indra or the "All gods" which enabled men desiring villages (Grāma-kāmas) to become owners of villages—i.e. Grāmyas or Grāmins. The chief interest of the evidence of these passages lies in the fact that these village-lords attained that position by acquiring pre-eminence over equals (Sajātas and Samānas).

VIII

SOCIAL INEQUALITIES; WEALTHIER CLASSES—THEIR ORIGIN

As to social divisions, we find, in addition to the princes, the existence of a rich upper class from an early period. The Rg-veda mentions Mahakulas figuratively, and the Maghavan (givers of beauty R. V.I. 31. 12; II 6. 4. V. 39.4; VI. 27.8) who were distinguished by their liberality. They were probably the representatives of the richer classes and are repeatedly praised. The wealth of the princes who, stood on a higher level, can be measured from the innumerable stories of gifts of gold, kine, horses, and ornaments which they bestowed upon the priests. The Dānastutis in the Rg-veda (R. V. VIII.) speak of the munificence of these princes. Thus, one sacrificer praises Āsaṅga (VIII. 1), another Medhatithi praises Vibhinda, who gave him 48,000 pieces probably of gold. A third praises Kuruṅga's gift of 100 (VIII.4), another praises the munificence of Kasa, the son of Cedi, who gave his priest "a hundred heads of buffalo and ten thousand kine." There is another which mentions the gifts of a prince, which included 10,000 kine and three hundred horses. Another hymn records the receipt from Pṛthuśravas, 60,000 pieces, ten thousand kine and 2000 camels (VIII. 46), another records the bestowal of "kine bedecked with ornaments of sparkling gold"; another records the gift of 50 slave girls (VIII. 19), while yet another, records the gift of 100 asses, 100 slaves and sheep. Many other hymns speak of large money-gifts in standards not specified therein.

Wealth of Princes.

As in the case of the princes, the wealth and liberality of the rich Maghavan is clearly apparent. The munificence of the rich Maghavan may be appreciated from constant praise bestowed on the people who made gifts of horses, cattle, clothes, and gold to their priests (see R. V, X. 107). They are praised in glowing terms, and they came to occupy a high social position. In one place, munificence is described as making a man the chief in his village (X. 107) and highly honoured by the community. We are told that "the liberal

Wealth gives high position.

die not—neither are they ruined, they suffer neither harm nor trouble—the light of Heaven, the universe about us, all this doth sacrificial guerdon (gift) give him."

The Taittirıya Sambita goes further and says that "wealth is the true basis of excellence."

POVERTY OF SOME SECTIONS. On the other hand, the evils of unequal distribution were very keenly felt. The misery of the homeless and starving poor is described in some passages of the Rg-veda. Some hymns (see X. 117) of that book tell us of the hungry poor, who go to others for food. The whole of the 117th hymn of the tenth Maṇḍala, dedicated to 'hunger' and attributed to 'Bhikṣu,' repeatedly inculcates upon the rich the duty of feeding the poor. Society expected the rich to contribute to the

Poverty.

alleviation of distress and the miserly conduct of the niggardly rich was denounced. "The man who does not offer to the gods, nor give alms to the poor," we are told, "is a miser who feeds upon sin only."

The same hymn (X. 117.9) dwells upon the inequality of human fortune and of liberality (capacity to give alms to the poor.) The similes there are really suggestive. We are told that as the two hands of a man are not equal, as two cows born of the same mother differ in their milk-

bearing capacity, as the strength even of twin brothers is not equal, even so men are not equal in their fortune or their liberality.

The preceding verses tell us how the unequal distribution of wealth came to play a predominant part in the evolution of society, how the rich came to be adored by men of lesser social position or wealth, and how the poor sank lower in the social scale.

As we proceed onwards, we find a multiplication of hymns directed against poverty. Wealth came to be a criterion of social position; social inequalities grew more and more, and the old simple state of existence passed away.

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IX

CASTE DIVISION

Apart from this division into rich and poor, we take into account another i.e. the caste-division which played so great a part in the evolution of the socio-political ideals of India. With the evolution of the caste system, society came to be regarded as something of an organism, with different duties entrusted to its various parts. The caste theory was developed and presented theoretical solutions of many problems. It solved the problem of division of labour as also the divergences of classes and of their eternal struggle.

THE BRĀHMANAS :—PRIESTS. Of the castes, the priestly classes were the happy recipients of the gifts bestowed by the princes and became rich. Sacrificers and givers of alms were common among them. The sages who composed the Dānastutis were rich men, whose wealth is sure to be regarded as considerable even in our own days. Not to speak of these, the ordinary priestly householders seem to have been above want. They relied on their farms managed by men of the Śūdra caste ; cattle was their most valuable asset. Even hermits like Gautama, the preceptor of Satyakāma Jāvāla, owned herds of 400 cows or more. The patronage of princes contributed to the growth of the rich and wealthy Mahāsālas and Mahāśrotriyas among the Brahmins who are mentioned in the later Upaniṣads and who find so prominent a place in the Buddhist Sūtras. (See Chāndogya. Up. V.11).

THE KṢATRIYAS. Of the next caste e.g. that of the Kṣatriya Princes, who were the rulers and fighters we may

speak little. They were the real masters of the country and lived a life of luxury and munificence. The relation of the ruling chiefs to their poorer kinsmen—the Rājanyas, is not known. Probably they too were above poverty, owing to the patronage of their ruling kinsmen.

THE VAIŚYAS. Of the Vaisyas, who were mainly agriculturists and craftsmen, we lack more precise information. But, there is reason to believe that this class, though they had somewhat lost their social position and were oppressed by the princes, were industrious and rich. To save them from the exactions of the Kṣatriya rulers, they formed their guilds, and thus became powerful. They often performed great sacrifices. The rich Śreṣṭhi bankers probably belonged to this class.

THE ŚŪDRAS. As to the Śūdras, they were mostly freemen. They too engaged in agriculture and in the lower arts. Some of the Śūdras were very rich and the Mah bhārata preserves a very old tradition about a Śūdra named Paijavana who performed numerous sacrifices and bestowed one hundred thousand sacrificial fees to priests. Some of the lower craftsmen and most of the menials and servants belonged to this caste.

Lastly, there were the slaves. They are mentioned throughout the Vedic period. They were unfree and had to serve their masters. We have mention of gifts of slaves made by princes, but we hear nothing of slave-markets. Moreover, in the absence of positive evidence to the contrary, we may hold that in the Vedic period, as in all subsequent periods, slavery never became the basis of industry or of economic life. The absence of slave markets may be taken to mean that they were never largely employed, and that the institution of slavery never attained that importance which it did in Greece, or Rome or in the social system of the Semitic countries.

X

GOVERNMENTAL IDEAL AND THE CONCEPT OF SOCIAL DUTY.

Before we pass on to a study of the next period, something ought to be said as to the early ideas as regards the duty of Government to the community. This will throw a flood of light on the social concepts of the day, as also on the socio-economic problems, which attracted their attention.

As to the theory of the state, the material at our disposal furnished by the religious literature of the ancients is indeed very scanty. But one feature of the Hindu state-concept is indeed interesting. In the coronation ritual, in the midst of minute regulations of life and conduct, in the midst of a maze of ceremonials and elaborate rituals, one duty is constantly enjoined on the king i.e. the welfare of the people through him. The state is conceived as an institution for doing good to the subject. In its theoritical exposition we find not only an idea of protection and justice but also the predominence of economic considerations. Not only was it the duty of the head of the state to protect life and property but also to help his people in furthering the material aspects of life. It is interesting to compare this ideal with similar ones found among the Jews and some other nations of antiquity. Thus in the Yajur-veda, in connection with the inauguration of a king, the priest addresses him as follows :—(Vāj. Saṃ. IX 22.)

"Oh Lord—here is thy kingdom—be thou its ruler and guide. Remain steadfast in thy position—Thou art here, to see that agriculture may flourish—and the prosperity of the country remain unbounded—that the people may

be wealthy and that there may be proper nourishment of the people."

[Iyam te rāṭ | yantāsi yamano dhruvo'si dharuṇaḥ | kṛṣyai tvā | kṣemaya tvā | rayyai tvā | poṣāya tvā ‖]

The above passage proves conclusively, as to how the economic side of national life recived its fullest attention from the head of the state. Other important passages throw light on the correlation existing between the various aspects of life and show how the community conceived of social happiness as depending upon the proper discharge of duties entrusted to the various classes and castes, not to speak of the other elements and agents of nature. Not only does the theory of division of labour play a prominent part in them but there is also a clear indication that the ancients looked to the solution of the economic problem as the chief criterion of worldly happiness. The universe itself was regarded as an organic whole in which each agent was to perform his part whether divine or human. To perpetuate the working of Nature's great phenomena, the gods were to do their part and under them men were to discharge their respective duties. This is amply illustrated by the following passage which may be cited to show the ideal of happiness which a king prays to the gods for his country to attain. (Vasordhāra Hymn. Vāj. Sam. XXII. 22).

"O Brahma, let there be born in the kingdom, the Brāhmaṇa illustrious for religious knowledge; let there be born the Rājanya, heroic, skilled archer, piercing with shafts—mighty warrior; the cow giving abundant milk; the ox good at carrying; the swift courser; the industrious woman. May Parjanya send rain according to our desire; may our fruit-bearing plants ripen; may acquisition and preservation of property be secured to us." (Vaj. Sam. XXII. 22 Trans. Griffith.)

[Ā Brahman Brāhmaṇo brahmavarcasī jāyatām | ā raṣṭre Rājanyaḥ Śūra iṣavyo'tivyādhī mahāratho Jāyatām | dogdhrī dhenuḥ | boḍhāṇḍvānaśuḥ saptiḥ purandhriḥ | yoṣa jiṣnuḥ | ratheṣṭhāḥ saveyo yuvasya yajamānasya vīro jāyatām nikāme nikāme naḥ Parjanyo varṣatu phalavatyo na oṣadhayaḥ pacyantām yoga-kṣemo naḥ kalpatām ||]

The social ideas of those days thus imposed upon the king some active duties. These remained no mere ideals. We have evidence in the praises of monarchs of how the theoritical concept of royal duty was translated into practice. To quote one of many such passages, in the Atharva Veda, we have, a subject of Parīkṣit singing the praise of the latter. In the eulogy which be bestows, he does not forget to mention in praise of his king, and sovereign, that agriculture and husbandry were in prosperous condition, that peace and happiness reigned in the kingdom, and that scarcity was hardly known.

7. "List to Parīkṣit's eulogy, the sovran whom all people love,

The king who ruleth over all, excelling mortals as a God.

8. 'Mounting his throne, Parīkṣit, best of all, hath given us peace and rest,'

Saith a Kauravya to his wife as he is ordering his house.

9. 'Which shall I set before thee, curds, gruel of milk barley-brew?'

Thus the wife asks her husband in the realm which King Parīkṣit rules.

10. Up as it were to heavenly light springs the ripe corn above the cleft.

Happily thrive the people in the land where king Parīkṣit reigns.

11. Indra hath waked the bard and said, rise, wander singing here and there.

Praise me, the strong : each pious man will give thee riches in return.

12. Here, cows : increase and multiply, here horses, here O men.

Here with a thousand rich rewards doth Puṣan also seat himself." (A.V, XX. 127 Trans. Griffith.)

BOOK III.

THE SECOND OR THE PRE-IMPERIAL PERIOD

Cir. 1000 B.C. to Cir. 400 B.C.



BOOK III.

CHAPTER I

I

THE SECOND OR THE PRE-IMPERIAL (PRE-KAUTILYAN) PERIOD

Cir. 1000 B.C. to Cir. 400 B.C.

The main characteristics of this period, from the point of view of economic history, have been summarised in the first book (P. 78 to 83). For the sake of convenience they may be repeated here as follows :—

1. Growth of towns and town-life owing to further industrial development.
2. Definite establishment of direct commercial intercourse with many of the nations of western Asia.
3. The great importance of the guilds which exercised very great influence upon the industrial organisation and economic life of the country.
4. A large circulation of metallic currency and the introduction of the Kārṣāpaṇa coinage.

EXTENT OF ARYAN OCCUPATION :—Before entering into a systematic study of the economic condition of this period we must first of all try to estimate the extent of the country brought under Aryan influence. Of the political divisions and the area of the country colonised by the Aryans, we derive our information from the Buddhist canonical literature, the Sūtras of Pāṇini and other ancient

Indian works. Paṇini's information as regards the country is confined to the northern and western part of India. He mentions the Sindhu-Sauvīra country, Kapiśā, Madra, the extreme north-western country, the Vāhika land and the countries inhabited by the Kurus, the Uśīnaras, the Andhakas, the Vṛṣṇis, the Vṛjis and some other tribes. The early Pali books mention the sixteen great divisions of India (the Ṣolaśa-mahājanapadāni) of which a list is found in many places of the Pali literature. They are as follows :

Aṅga	Kuru
Magadha	Pañcāla
Kāsi	Maccha
Kosala	Sūrasena
Vajji	Assaka
Malla	Avanti
Ceti	Gandhara
Vamsa	Kamboja.

Kaliṅga is also mentioned. We know, further that a large part of country west of Kaliṅga, in Central India, was covered with dense forest, for we meet with the mention of a forest called Kaliṅgarañña. Vaṅga must have been known, as we may infer from the expression Vaṅganta-putta Upasena[1] (e.g. Upasena hailing from the Vaṅga border) in the Vinaya text. (I. XIV. 3).

Next we have the Jataka evidence. The evidence of the Jātaka stories as to the extent of the country known in those days, shows a distinct advance. They show a more intimate knowledge of southern India than the early Buddhist books.

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[1] I am indebted to my friend Prof. S. N. Mitra of the Post-graduate Pali staff. The name of this great teacher Upasena with the epithet Vaṅgantaputta occurs in the Nikāyas. Later on, references to him are common. They occur in various places of the Milinda Pañha.

Thus, in addition to the regions mentioned above, the Kaliṅga country is expressly mentioned in the Kurudhamma Jataka (No. 276). The Sarabhaṅga Jātaka places the Avanti Country in the Deccan and mentions the Godāvarī river, and the Daṇḍyakāraṇya (Daṇḍaki). Another Jātaka (524) mentions a Māhimsaka country and the river Kaṇṇa-peṇṇā. Another (480)—the Akitti Jātaka mentions the Damila-raṭṭha, the Damila country, and speaks of Kāvirapattana and of two islands near it viz. the Nāgadīpa and Kāradīpa. And as these Jātakas seem to be very old, in as much as they contain the old verses, the evidence furnished by them cannot be rejected on the ground of modernity or of later interpolation.[1]

South India in the Jatakas.

From the above, we may gather that practically the greater part of Northern India extending in the east to the frontiers of Bengal, and in the south a large portion of the Deccan was known in the time of great Buddha in the 6th century B. C. As to the extreme south we have very little information from contemporary Hindu and Buddhist sources. We may, however, presume that a large portion of the south had been colonised or even known by the Aryans by that time, because in the 4th century B. C. Kauṭilya, the author of the Artha-śastra, shows himself to be familiar with the extreme southern country.

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[1] References to Oḍḍa, the Orissa Country and various other localities are to be met with in the Majjhima Nikāya. We have however, refrained from going into details, as these are quite out of place here.

II

THE GROWTH OF TOWNS

TOWNS AND TOWN LIFE :—As we have said, in the Vedic period town-life which is so closely associated with the growth of industry and commerce was not developed. Only in one place of the Vedic literature (Yajurveda. Vaj. Sam. XXIV. 18. 4) we have a reference to a city named Kāmpila (Kāmpilya ?) and that is also disputed. In Paṇini we have mention of some towns and Takṣaśilā and Śālatura are some of them.

When we come to the 6th and 7th centuries B. C., we have many important cities which existed at the time of the rise of Buddhism and Jainism. A list and description of these is given in Rhys David's Buddhist India (pp. 34-41.) The following are the more important of them :

1. Ayodhyā (Ayojjhā) was quite unimportant in Buddha's time.
2. Bārānasi-(Banārasi)-(Benares) is famous in early Jain and Buddhist literature. It was once the capital of an independent kingdom. Brahmadatta the Bārāṇasi king is repeatedly mentioned in the Jātakas. Later on, it had been absorbed by the Kośala monarchy. The fine silk and muslin fabric of Beneras was famous in the those days. It was a great centre of the textile industry.
3. Campā-The ancient capital of the kingdom of Aṅga.
4. Kāmpilya-(Kampilla) the capital of North Pañcāla.

5. Kosambi or Kausambi—The capital of the Vatsas. It was one of the most important halting place both for goods and passengers coming to Magadha.

6. Madhurā-(Mathurā)—Capital of the Surasenas. It was visited by the Buddha.

7. Mithilā—the capital of the Videhas.

8. Rājagṛha-(Rajagaha, Rājagiha).—It is mentioned in the Buddhist and Jain literatures, and was once the capital of Magadha.

9. Roruka—Was the capital of Sovīra. It was an important centre of coasting trade mentioned in the Dīgha Nikāya (XIX. 36).

10. Sāketa—It was one of the great cities mentioned in early Buddhist literature. (Rhys Davids. Buddhist Suttas, p. 99). The name occurs in the early Jain list of towns.

11. Śrāvasti-(Sāvatthi)—The capital of northern Kośala and the seat of King Pasendi (Presenajit), is also mentioned in early Jain literature.

12 & 13. Ujjaini-(Ujjeni) and Māhismati. Māhissati is mentioned in Dīgha. N. (XIX. 36.)

14. Vaisāli or Vesāli. It was the capital of the Licchavis. It was also the birth place of Mahavīra.

15. Patiṭṭhana or Paithana.

In addition to these we have reference to Daṅtapura on the Kalinga cost, Bharukaccha and Suppāraka.

In the early Jain literature, which of course derives its information from sound tradition, we have a list of the towns which existed at the time of the rise of Jainism. The Uvāsagadasao (Lec. 10) mentions Vaniagāma, (Vaiśāli),

Towns in Jain Literature.

Campà, Banārasi, Polasapura, Rājagiha, Setavya, and Kampillapura. In other places we have a list of 20 towns e. g. Bāraṇaśi, Sāvatthi, Vesāli, Mithilā, Alavi, Kosāmbi, Ujjaini, Takkhasilā, Campā, Sagula, Sumsumāra, Rājagiha, Kapilavastu, Sāketa, Indapattha, Ukkaṭṭha, Pāṭaliputtaka, Kusinārā Samkassa. (See Uvā. Da. pp. 52) According to the Jain tradition Vaniyagāma was a big city which included in addition to Vesāli the suburbs of Kundagāma and Kullaga. (See Trans. Uva. Dasao. p 4.)

In addition to these names mentioned above, we find the names of many Nigamas and Nagaras in Buddhist literature. Thus Ukkaṭṭha is mentioned in the Dialogues of Buddha. In the Majjhima Nikāya, the city of Aṭṭaka is mentioned as well as the Nigama of Assapura, in the Aṅga country, Kitagiri in the Kasi country, and Halidda-Vaṃsa Nigama in the Koliya country. These Nigamas, of which we have some mention in the Jātakas, were market-towns or villages, and seem to have derived their importance from being commercial centres.

Towns were generally walled up (Bud. Ind. p. 63) and often fortified (See Greek description of Pāṭaliputra) and contained in addition to the palaces of princes and rich men, the houses of tradesmen and common people. As to the material used in building these houses, it has been described in "Buddhist India" (page 64 to 70). The houses were mainly of wood, though the rich used to live in palaces of stone, or in brickbuilt houses. The mason's art had reached a high stage of perfection, and they were amply

Life in Towns.

paid for by the rich employers. The high economic development and luxury of the upper classes is apparent from the direction in the Vinaya for the construction of plaster work, the mention of the various patterns (Bud. Ind. p. 68) and the description

of the hot air baths in the Vinaya texts (Vinaya Texts III. 105-110 see also Bud. Ind. p. 74 also p. 78 in connection with drains).

Stone seems to have been largely used before the 6th. cen. B.C. The poorer sections of the population lived in one storied thatch-roofed houses. The raising of lofty monuments of considerable size had become the practice with the rich.

The city walls were protected by moats and ramparts and contained watch-towers at intervals, which were constantly garrisioned with troops. The city walls contained high and lofty gates for the entrance and egress of inhabitants. About the early hours of night these gates were closed, and entrance and egress were forbidden. The story of how king Pasenadi of Kosala was kept out of his capital by the stratagem of Dīgha Kārāyana, and how this made him lose his kingdom, amply shows the stringency of the rules for closing the city gates. Apart from this scanty information, we know nothing of the city from the earlier Buddhist Books.

Town arrangements.

The influence of the development of industry and of the guilds on town life was immense. Though we have no detailed description of any Indian town in early literature, we may pre-suppose the condition of city life from accounts, which though late in point of time may be utilised without the risk of falling into the error of anachronism. All these accounts concur in describing an Indian city as completely walled up and divided into different quarters which were alloted to men of different castes and trades excepting the Caṇḍālas and Pukkusas who lived outside the city.

Thus from Jain literature we know that the Kṣattriya quarter of Vaniyagama was different from that of the Brahmins. The Artha-śāstra (see pp. 54, 55) too speaks of

different quarters, for men of different castes and callings. (see also J. R. A. S. 1901. pp. 860 to 862). That work gives us in addition, other details which are of great service to the historian who tries to draw a picture of the city so far as economic life is concerned. The Greek descriptions of Pāṭaliputra seem to confirm the account of the Artha-śastra, and all this will be related in connection with the history of the next period.

TRADE ROUTES

TRADE ROUTES :—These towns were great centres of trade and manufacture. Merchants moved with their manufactures from one city to another. In the oldest Pali books we have accounts of the journey of great teachers and from these and other sources, Prof. Rhys Davids has proved the existence of the great trunk-roads which connected the important centres of trade and manufacture. We find the description of these trade-routes and stopping places in his Buddhist India.

The great trade-routes.

"We have accounts of routes actually followed by merchants either on boats, or with their caravans of bullock carts. We can thus draw up provisionally the following list.

1. North to South-west :—Sāvatthi to Patiṭṭhana and back. The principal stopping places are given (beginning from the south) as Māhissati, Ujjeni, Gonaddha, Vedisa, Kosambi, and Sāketa.

2. North to South-east :—Sāvatthi to Rājagaha. It is curious to note, that the route between these two ancient cities was not direct ; it was along the foot of mountains to a point north of Vesāli and only then turning south to the Ganges. By taking this circuitous road the rivers were crossed at places close to the hills where the fords were more easy to pass. But political considerations may also have had their weight in the original choice of their route, still followed when they were no longer of much weight. The stopping places were, beginning at Sāvatthi, Setavya, Kapilavastu,

Kusinarā, Pāvā, Hatthigama, Bhaṇḍagama, Vesali, Pataliputta and Nalanda. The road probably went on Gaya and there met another route from the coast, possibly at Tamralipti to Benares.

3. East to West :—The main route was along the great rivers, along which boats plied for hire. We even hear of express-boats upwards the rivers which were used along the Ganges as far west as Sahajāti and along the Jamunā as far west as Kosāmbi. Downwards, in later times, at least the boats went right down to the mouths of the Ganges and thence either across or along the coast to Burma In the early books, we hear only of the traffic downward as far as Magadha, that is, to take the farthest point Campā. Upwards, it went thence to Kosambi, where it met the traffic from the south and was continued by cart to the southwest and northwest.

Besides the above, we are told of traders going from Videha to Gandhāra, from Magadha to Sovīra, from Bharukaccha round the coast to Burma, from Benares down the river to its mouth and thence on to Burma, from Campa to the same destination. In crossing the desert west of Rajputana, the caravans are said to travel only in the night and to be guided by a land-pilot, who just as one does on the ocean, kept the right route by observing the stars. The whole description of this journey is too vividly accurate to life to be an invention. So, we may accept it as evidence not only that there was a trade-route over the desert, but also, that pilots, guiding ships or caravans by the stars only, were well known. In the solitary instance of a trading journey to Babylon we are told that it was by sea, but the port of departure is not mentioned. There is one story, the world-wide story of the Sirens, who are located in Tambapaṇṇi-dīpa, a sort of fairy-land, which is probably meant for Ceylon. Laṅkā does not occur."

Traffic with China is not mentioned until we come to the next period, when we find mention of Cina in the Arthaśastra (in connection with silken goods). Alexandria, in Bactria, and some islands in the Eastern Archipelago, in addition to various countries are mentioned in the Niddesa commentaries and the Milinda which belongs to the next period (p. 127, 327, 359. Trenk. Ed.). The Mahaniddesa commentary records journeys to various towns and places, and dwells upon the difficulties of the way. The difficulties of caravans crossing the deserts or moving through narrow paths or paths infested by enemies are figuratively described as Ajapatha (goat-path), Bannupatha, Musikapatha (rat-track) Verapatha (enemy track) or as Maraṇapāra (region beyond death). The use of the land-pilot is described in a Jataka (no. 108) where we find a vivid picture. Some of the Jatakas seem to have preserved the original tradition as to the state of affairs which existed at the time of the rise of Buddhism and their evidence may be accepted.

Other details.

V

SEA VOYAGES

The Nikayas speak of sea voyages out of sight of land, referring probably to voyages across the ocean, and not mere coasting-journeys. They mention many of the settlements and ports on the sea-coast. Thus, according to Prof. Rhys Davids, we have references to the settlement of Dantapūra on the Kaliṅga coast and probable references to the ports of Bhrrukaccha and Supparaka (Rhys Davids, Bud. Ind. p. 31).

The Jatakas mention many sea-coast towns and some coastal regions. Thus, the Ghaṭa Jātaka contains references to the city of Dvāravatī, while another (424) mentions the city of Roruka in Sovira. The Paṇḍara Jataka (518) mentions another city on the sea—the Kalambika Pattan. The Akitti Jataka mentions the port of Kavirapattana.

In connection with sea voyages, we get some more information from the Jatakas. Thus Baveru Jataka (339) evidently speaks of a voyage to Baveru (Babylon), another the Valāhassa (196) speaks of voyages to Tambapaṇṇi or Ceylon (Jat II. 127), while other Jātakas (e.g. the Saṇkha 442 and Mahājanaka 539) speak of voyages to Suvaṇṇabhūmi or regions of the Eastern peninsula. Tambapaṇṇi is also mentioned in the Mahāniddesa. In connection with sea-voyages we hear of pilots who were helped in steering the vessel by watching the stars and by observing the flight of birds (Disākāka), which is described in the Aṅguttara Nikāya (III. p. 368). Another reference to the use of birds to guide the pilots is found in the Kevaddha Sutta. Sakunapatha is referred to in the Mahaniddesa. The Jatakas, too, describe the use of these Disākākas (Bābheru and Dhammaddhaja, 339 and 384).

CHAPTER II

I

AGRICULTURE AND VILLAGE LIFE

VILLAGE :—RURAL ECONOMY : DISTINCT TYPES OF VILLAGE—Inspite of the growth of these innumerable towns, of which a list has been given above, villages still remained the main centres of activity for the ordinary mass of the agricultural population. From the evidence at our disposal we are enabled to distinguish two main types of village :

(1) the ordinary agricultural village.

(2) the industrial village arising out of the congregation of men of the same craft in one village.

Some villages were exclusively peopled by men of the same caste or Varṇa. Thus we hear of villages exclusively peopled by Brahmins (see Majj. Nikāya, Vol. I P. 285). Similarly, we have villages peopled by the Kṣatriyas, Vaiśyas or exclusively peopled by Śūdra castes. As to the industrial village of craftsmen and working people (all following the same occupation or trade) we find innumerable references in the Jataka literature. Thus we find mention of villages of carpenters (Jat. no. 159) containing 1000 families ; villages of smiths (Jat. no. 281), potters, and other craftsmen.

In the ordinary agricultural villages and in towns in general, the population was a mixed one. Men of all Varṇas lived there, pursuing their different occupation, trade, or calling. The majority of inhabitants were cultivators or

workmen. But there were in addition to these, merchants and craftsmen who formed guilds for their own protection. The history of the origin of these guilds, their purpose and their organisation will be described in detail in a separate section entirely devoted to it.

Causes of the rise of the industrial village.

As to the causes of the rise of the industrial village, we have but little information. It may however be suggested, that the main cause which contributed to their growth was that before the development of industry, the industrial population was attached to the village, earning their livelihood by supplying the requirements of the agriculturists. As will be shown later on, this was the case in most villages of Pāṇini's time. With a greater demand for the products of their labour, they found the opportunity of freeing themselves from the tutelage of the agricultural interest. This was most propably opposed by the villagers, who found the retention of the ruralised industry to their advantage. This selfishness on the part of the villagers made the craftsmen unite into corporate organisations and they withdrew to places where they had better opportunities of pursuing their own occupation, unmolested, and without any opposition from those classes whose interest it was to keep them in a state of tutelage.

RURAL ECONOMY AND AGRICULTURE :—As has already been said, the village remained the centre of life for the mass of the agricultural population, the industrial population mainly congregating in towns or in their own villages.

The village arrangements remained practically the same as at the end of the previous period. In the centre was the inhabited portion containing the homestead of the villagers. Around this inhabited portion was the

village field (Kṣetra or Khetta) and, as far as we know, this village field was wider in Magadha (see Vin. I. 287; II. 186). As to the arable land, individual ownership was fully established and the owners or occupiers of the plots cultivated their own fields, aided by their family or with help of slaves or hirelings.

Village arrangement.

LAND: As we have shown already, in the previous period there was a feeling against the land transfer (Śatap. Br. XIII. 7. 15) but in this period we find that gradually this opposition had died away, so far as this transfer or transaction was carried on between members of the same village. Thus, according to Mrs. Rhys Davids,

1. Land could be let against half or any other stipulated share of produce. (Āpastamba. D S. II. 11. 28; I.6.18).
2. It could be made over as gift to another.
3. It could be sold (Vin. II. 158. 159)

(J. R. A. S. pp. 860. 1901).

Opposition to the introduction of new-comers still remained, as is evidenced by passages of the Arthaśāstra.

ROYAL SHARE AND ITS COLLECTION. Of the raw produce a share was given to the King as annual tithe. This royal share which is found in pali books as well as in the Dharmasūtras varied according to different authorities (D. i, 87 see also Vaśiṣṭha, Dh. Sū; also Gautama, Gh. Sū. X 24). Probably it varied with different localities and during successive ages.

ROYAL GRANARIES. The produce of fields was taken to public granaries for the excision of the royal tithe before taking these to the barns of the respective owners. This payment in kind is apparent from the description in Kurudhamma Jataka (276) and the royal official who measured out this royal share was called the Droṇamāpaka.

STOCKS TO WARD OFF PUBLIC DISTRESS.

Kings seem to have kept special granaries for urgency (Indian Antiquary, 1896. 261). This was continued by later kings as is proved by the evidence of the Arthaśastra, which directs the retention of half the annual produce in royal granaries, for the relief of distress arising out of famines. Kings provided poor persons with food and seed corn to enable them to start farming—(D. i. 135). In the next period we find confirmation of this from the Arthaśastra. (See. Sohguara Plate, Supra, Ind. Ant., 1896).

Occasionally the king made over the tithe to others (D. 1. 87). In the oldest Pali literature we find innumerable grants of villages (as Bhogas—Jaigirs ?) to the Mahaśalas who held them as Brahmadeya land and were mostly Brahmins (see Dialogues of the Buddha ;—in the Ambaṭṭha Sutta we find Pokkharasādi of Ukkaṭṭha enjoying such a Bhoga) ; occasionally we hear of Kṣatriya Mahaśalas.

VILLAGE HUSBANDRY ; CORPORATE UNIT. As before, the villages had their common grazing ground and common herdsmen (see M. 1. 122). Beyond this belt of land was the Araṇya which was a sort of no man's land frequented by hermits, wanderers or robbers. The village was not only a self-sufficient whole but was regarded as a corporate unit. Passages of Vaśiṣṭha Dharmasūtra speak of the village as a corporate whole and we are told of fines being imposed on them (V.Ś. Dh. Sū. III. 4).

The villagers had a voice in the management of their own affairs, though by the time of the Jātakas the village headman was no longer an elected official, but a man appointed by the king. This officer, the Gamani or the Gamabhojaka, collected the royal dues and often tried to cheat his master.

Villagers co-operated to dig wells or to construct embankments or to build roads, though communal cultivation had long ceased to exist.

Thus from the Kulāvaka Jataka we know that the villagers co-operated in raising embankments or digging in wells or raising. temples. Similarly, the Losaka Jātaka (41) and Takka Jātaka gives us the story of the establishment of a village school and the construction of a hut for the teacher at the instance of the villagers. The Mahā-ummagga Jātaka (546) describes the establishment of buildings of public utility, by subscriptions raised from the villagers. The raising of subscriptions for works of public utility is further proved by the evidence of many Jātakas and is amply confirmed by the evidence of the Arthaśāstra.

The affairs of the village were transacted by the villagers who met together for this purpose. In case of division of opinion, the voice of majority prevailed (see Sunila Jātaka 163 and Kā-ava Jātaka 221.)

Village elders administered justice in petty cases. The Judicial authority of the village elders remained till the end of the Hindu period.

Lastly, another interesting piece of information from the Jātakas goes to confirm fully the corporate character of the villages, namely, the practice of contracting or raising a joint loan in the interest of the villagers. This is mentioned in the Gahapati Jātaka, where we are told that the villagers contracted a loan (of an old cow) from the Grama-bhojaka.

CULTIVATION: FREE OWNERSHIP:—There is reason to believe that most of the arable land was cultivated by peasant proprietors (Khettapati, Vatthupati) who were free men. In later Buddhist literature cultivation of land by peasants for princes or capitalists was regarded as a mark of social decay (Jat. no. 339). As yet there was hardly any stigma attached to the higher castes engaging in agriculture. In the Dharmasūtras we find permission given to poor Brahmins to engage in

cultivation or cattle-rearing, though these two were the peculiar occupations of the Vaiśyas and Śūdras and were regarded as being detrimental to spiritual advancement. The Jātaka evidence too goes to confirm the fact that Brahmins engaged in agriculture and occasionally ploughed with their own hands (see Somadatta Jātaka (211) and Uraga Jātaka (354). In the Suttanipāta we have the story of Kasi Bhāradvāja, a Brahmin cultivator of Ekanālā, a Brahmin village in Dakṣhiṇa Magadha. This Brahmin according to the testimony of the Sutta was a cultivator and had five hundred ploughs and the requisite number of oxen, in addition to a large herd of cows. The account is really interesting, since from it we know some thing of the agricultural methods of those days and find mention of the plough (Naṅgala), the oxen-team, the yoke (Yuga) and the goad (Pacana). From another account e.g. the Dhaniya Sutta, we have a contemporary description of the ideal happiness of an agriculturist house-holder. In course of a dialogue, a cultivator speaks of his wealth in cattle, his milch cows (Dhenupa, Godharani, Paveni), his stock of ripe grain and such other things. He expresses his self-satisfaction at the fact of his being his own servant, and no body else's slave (Atta-vetana-bhato—Ātmavetanabhṛta). As already stated, we find Brahmins in the Jātakas, both as holders of large estates and also as peasant proprietors (see J. R. A. S. 1901.)

CULTIVATED PLANTS:—As to the cultivated plants, most of those mentioned in connection with Vedic agriculture were cultivated. In the Sūtras of Paṇini and in other Buddhist and Hindu works we find the names of most of these enumerated e.g. Dhānya, Vrihi, Godhuma, Mudga, Māṣa, Yava, Masūra, Kulattha, and other plants. In the East rice remained the staple article of food and so rice was extensively cultivated. There was a large cultivation of sugar-canes, fruit trees, vegetables, and of flowers. Rich

people kept garden of flowers and fruit trees. In addition to these there existed a large cultivation of various aromatic plants, spices, indigo, and fibrous plants, as we shall see very soon. In the next period Indian pepper and spices were exported to the western markets where they were highly prized. Indigo was used for dyeing cloths and garments.

FIBROUS PLANTS:—As to fibrous plants, cotton, (Karpāsa) Śana, (hemp) and linen were largely cultivated during this period. Śana is mentioned in the grammar of Paṇini. This was largely used in addition to linen, the use of which in the previous period has been explained. As to cotton, its cultivation was probably introduced during the earlier part of this period. As we have said, we find no mention of cotton in Vedic literature. Its earliest mention is found in the Āśvalāyana Śrauta Sūtra, and later on in the earliest Buddhist literature and in the Dharmasūtras cotton garments are reapeatedly mentioned. Thus the Mahavagga mentions Kappasika garments, in addition to Tulika (quilts, stuffed with cotton wool). In the Dharmasūtras, Karpasa is repeatedly mentioned in connection with the description of sacrificial dress and of the secred thread to be worn by men of the three higher castes. There is reason for believing that Karpasa was well known in India and was largely cultivated before the sixth century B. C. and cotton garments were largely used. Herodotus who wrote his history in the 5th century B. C. clearly refers to the fact that Indian soldiers in the Persian army wore white cotton cloth. Cotton was indigenous to India and the other nations of antiquity learnt its use from the Indians. This is proved by the way in which Herodotus mentions it. Thus he speaks of "wool growing on trees, more beautiful than that obtained from sheep." (Herod. History). As has been said

Cotton.

already the word Kapas occurring in the old Testament and meaning vegetable cloth (see Esther. 1. 6) is apparently a Hebrew rendering of the Sanskrit Karpasa which the Hebrews borrowed from the Hindus. Similarly, Latin Carbasus is a corruption of the same Sanskrit word. The large cultivation of cotton and its extensive use in India is proved by the Arthaśastra (4th century B. C.) where we find that by the time of its composition Vaṅga, Vatsa, Mathurā, Aparanta, Kaliṅga and Kāsi were great centres of cotton-weaving (Kauṭilya. p. 81. text. 1st Ed.)

SILK :—Another industry which grew up during this period, was the culture of silk worm. Garments of silk are mentioned in the Majjhima-sila, and in Paṇini the word Kauṣeya (meaning silken) occurs (P. S. IV. 3, 42). In the Bhikkhu Pātimokkha (on Eḍaka-lomavagga) we find the word Kosiya-missakam (meaning mixed with silk). All these go to prove that the silk industry existed in India before the 6th century B. C. or even earlier. In the Dharmasūtras too we have repeated mentions of silk garments (see Vasistha Ch. XI 66).

Whether the silk industry was introduced from China is a disputed question. According to Chinese tradition, one of their queens introduced the cultivation of the mulberry plant in 2240 B. C. Kauṭilya who mentions the silk industry in eastern India mentions also Chinese silk (Cina-patta and Cina-bhūmijaḥ ; Kau. P. 81). Recently this question was discussed by M. M. Haraprasada Sastri in his article. "On the contributions of Bengal to Hindu civilization" published in the Journal of the Behar and Orissa Research Society. To decide whether silk industry was imported from China or it was of local growth is very difficult. The most reasonable view would be to hold that apart from imported Chinese silk, the Indians produced silk

Silk.

thread from the cocoon of the various species of the worm which are still found wild in Bengal and Assam. (Vol. V. p. 31 ; see also supra pp. 53).

DISTRESS AND SCARCITY :—We have references to distress caused by famines through draughts and floods. In Pāṇini the word Durbhikṣa occurs, and in the early Buddhist literature we find references to occasional famines and distress (see M. I. 220 ; Vin. I. 211-15).

CHAPTER III

I

INDUSTRY.

In early times mechanics and craftsmen were attached to the village and earned their living by serving the villagers. This was generally the case in the ordinary agricultural village and in this case industry still retained its rural character. Several sūtras of Pāṇini refer to craftsmen attached to the village. Thus the Sūtras "Gramaḥ Silpini" (VI. 2. 62.), clearly points to the existence of craftsmen attached to the village. Another Sūtra mentions a village carpenter (Grāma-kauṭā bhyāṁ ca Takṣṇa V. 4. 95). Beyond this the Sūtras do not give us any more information, but if we depend upon the Gaṇapāṭha or the commentaries, we find mention of a large number of mechanics and craftsmen, along with servants of lower grade, who ministered to the wants of villagers. This practice continued in many parts of India and exists even in our own days.

SEPARATION OF THE INDUSTRIAL ELEMENT.

In earlier ages this practice was almost universal. But gradually, with the advancement of industry, we find a definite tendency on the part of the artisans to separate themselves and to found organsations of their own. By the middle of this period, industry in most cases definitely passed the rural stage. Artisans and craftsmen found it convenient for them to free themselves from the village tutelage. Dependence on the village made them entirely their servants and compelled them to subsist on the occasional

doles and remunerations according to the whim of the villagers. A better organisation, on the other hand, enabled them to find out better opportunities for their crafts. They could work more, produce more, and send the products of their labour to other markets than the village.

The growth of towns and town life, the development of commerce, internal and foreign, the greater demand for manufactured articles, all these contributed to the growth and the volume of the industry. The industrial population became separated from the agricultural villagers and became settled in towns or in villages which became centres of industrial life. They organised guilds and further developed their corporations which aimed at securing better opportunities for the realisation of their ideals. Almost all the industries were organised into guilds. Craftsmen too had similar organisations. The establishment of these guilds contributed to the development of industry and the prosperity of the industrial population. The chief industries were the following :—

Growth of industry.

II

THE WEAVING INDUSTRY

1. Weaving includes weaving of cotton and silken cloth, embroidery and the manufacture of blankets.

The weaving industry attained a very high development. In addition to wool and linen mentioned in the Vedic period, cotton and silk fibres were largely used in the manufacture of cloths and garments. In the earliest Buddhist literature of this period we find weavers being employed to weave cloths for monks. (Cīvara : see the Pātimokka) we also hear of garments of wool. These seem to have been very cheap. In the Bhikkunī pātimokkha four, and two and a half Karṣas are set down respectively as the price of big and small covering pieces for nuns. We also find mention of Kappāsika garments (of cotton) and of Koseyam (silken garments). In the Majjhima Sīla we have a list of various kinds of cloth and blankets e. g. Gonako (goat's-hair coverlets) Cittika, Paṭika, (white blankets) Paṭalika, Tulika (quilts stuffed with cotton) Vikaṭika (with figures of lions &c.) Uḍḍalomi (with fur on both side), Ekantalomi (with fur on one side), Koseyyam (silken), Kuṭṭakam (carpets). As to the weaving industry, we know further from the evidence of the Therī-gāthā that the fine silk and muslin cloth of Benares was highly prized in those days. Cotton was cultivated in large fields near Benares (see Tuṇḍila Jātaka 388). The Jātakas, too, speak highly of the cotton textile of Benares. (Madīyaka-Jātaka 390). According to some Jātakas the price of cotton cloth ranged up to 1000 pence. (See Guṇa Jā. 157 ; Therīgāthā Chap. XIV.). According to the Vinaya Piṭaka, the cotton cloth of the Sibi country was of a high quality (M. V. VIII. 1.). We also hear of rugs for elephants and horses.

III

THE SMITH AND MANUFACTURE OF METALS

2. The smith's industry.—As to the smith's (workers in metals) industry, the Kammara is mentioned in the earlist Buddhist Literature. He was, according to Mrs. Rhys Davids, a general crafts-man in metals, and manufactured various implements of iron e. g. weapons, ploughshares, axes, saws, knives etc. and also implements and utensils for household purposes (J. R. A. S. 1901. P. 864) and even made ornaments of gold and silver.

In addition to the metals already known or used we find the use of various alloys. Of these alloys, Kamsa is mentioned in Pāṇini (IV. 3. 168 ; 5. 183) and in the earliest Buddhist literature. It was used for making utensils and other household implements.

Jewellers and workers in precious metals also existed. They made gold and silver ornaments and produced works of high value which were prized by women of rich families. Precious stones, gems and pearls were largely used for the making of ornaments. The Jātaka evidence throws some more light on the art of the smith. Thus the Sūcī Jātaka (387) mentions a smith manufacturing five needles. The Kusa Jataka mentions a smith making gold images. The swords of Daśarṇa were famous for their high temper and fine edge.

IV

CARPENTRY

3. Carpentry.—In addition to the ordinary carpenters who were employed in making house-hold furniture or other wooden articles there were skilled workmen employed in building carts and chariots and in building boats. As to the buildlng of wooden ships we have some reference even in the Aṅguttara Nikāya which is found also in the Samuddavānija Jātaka (466). Houses were often built of wood and in these the skilled workmen were called upon to show their skilled merit. The Anīlacitta Jātaka (156) mentions a guild of weavers who lived near Benares, and there collecting timber from forest, made house-hold furniture and even house parts, posts etc, which were afterwards joined together. As to house-hold furniture for rich men we hear of the Pallaṅko and Āsandi. The connection of the carpenter (Vaḍḍakī; Mahā-Vaḍḍhakī) with the Thapati is not known.

4. Pottery.—The potter is repeatedly mentioned in the Buddhist literature. The pottery work and designs attained high development.

In addition to these, we hear of workers in stone (Rhys D.p. 90) whose work attained high development during this period and who designed and built houses, carved pillars, and produced work of high value (Bud. Ind. P. 90), shoe-makers making ordinary shoes or embroidered slippers, men employed in making ornaments and jewellery, ivory workers, makers of bows and arrows, stone-masons (Pasāṇa koṭṭaka), men engaged in distilling wine or preparation of sweetmeats etc.

The Jatakas throw some more light, and give us details showing the multiplication of crafts. Thus in connection

with workers on stone, we hear of the Pasāna-kuṭṭaka.

New crafts arise.

Some Jatakas point to mechanics setting and using marble slabs. (No. 153 and 157). Brick-masons were known as Iṭṭhaka-vaḍḍhakī. The stone-mason often produced works of superior skill. Ivory-workers produced various articles, ornaments and toys. One of the centres of ivory-work was at Benares (See Sīlavannāga (72) and Kāsāva (221) Jātakas). This industry was located in a particular portion of the city which was known as the ivory-worker's street (Danta-kāra-vīthī)—(Sīlavannāga-jātaka no. 72). With the growth of the crafts there was a division of labour. Thus the Jātaka evidence shows that in those days, bow and arrow-making which employed a large number of mechanics, involved three different operations and employed three sets of people. The evidence of some Jātakas show the making of bows from the horn of animals, owing to its flexibility (See Asadisa J t. 181 and Sarabhañga Jāt. 522).

Wine-distilling, too, was the occupation of a large number of men—since the drinking of wine was common in those days. Various classes of liquors e g. Surā, Meraya, Vāruṇi, Kāpotikā and other varieties were used by the people in all festive occasions. Of other people, not directly concerned with industry proper, may be mentioned painters—who excelled in their art (See Mahāummagga Jātaka (546 and Sudhābhojana Jātaka (535). Cooks, confectioners, potters, and dyers existed and carried on brisk business.

The rise of these industries was, as we have said, followed by their localisation in particular places, favourable for their growth and gave rise to industrial villages. We have innumerable references to such movements of the population in the Jātakas. Thus in one Jātaka we are told of a village of smiths. Another tells us of a village of carpenters (Mahā-vaḍḍhakigāma). Similar organisations were also common among other sections of the population.

V

GUILDS

The necessity for interdependence among craftsmen gave rise to something more than a mere localisation. Men of the same trade or occupation not only congregated in the same localities, but bound themselves to each other by the formation of corporate organisations, known as guilds, which are found in almost all countries and in all ages. The guild was not only a union of men, but in it there was a harmonious association between labour and capital. In India the movement towards guild-organisation originally began towards the close of the Vedic period proper, but it was during this period that the guilds came to play an important part in various aspects of social life.

Importance of guilds.

As to the rise of guilds which are closely associated with the growth of industry, we find their earliest mention in this period, in the Sūtras of Paṇini. There, we find four words e.g. Gaṇa, Pūga, Vrāta, and Saṅgha (V. 3.) In addition, Paṇini mentions Āyudha-jīvi-saṅghas and speaks of the Yaudheyas. In early Pali literature too, we find the words Saṅgha, Pūga, Seni and Gaṇa (see Bhikkhunipātimokkha, Ch. 2.). But unfortunately for us, we have no detailed information about these unions, which may be of real help to us to find out the exact nature of these organisations.

As to the word Gaṇa, it is difficult to find out its meaning in the earliest Buddhist literature. It probably meant any corporation or union of indivdiuals for religious or any other purposes (see Bhikkhuṇi-Patimokkha ; Bhojana-vagga). Gaṇa

is often used in the sense of a religious body of men of high position. According to the Kaṅkhāvitaraṇī Gaṇa was a body of men of high position; Pūga was a religious body (Dhammagaṇam) while Seni was a corporated union of merchants. Again, the use of the word Gaṇa in the sense of religious body is continued in later works in the same sense. Thus in Milinda, the King enquires whether there was any Samaṇa-Brāhamaṇa — head of Saṅgha (Saṅghī) leader of Gaṇa (Gaṇī) or Gaṇa-teacher (Gaṇācāriya) who could dispel his doubts. In reply he was told by the 500 princes that there were the great six e.g. Pūrana Kassapa, Makkhalī Gosāla, Nigantha Ñātaputta, Sañjaya Vellaṭṭhiputta, Ajita Kesakambali, and Pakudha Kaccāyana. They were all heads of Saṅghas (Saṅghino), leaders of Gaṇas (Gaṇino), teachers of Gaṇa (Gaṇācāriyo). The Milinda also speaks of various Gaṇas or Hindu religious sects, e·g. worshippers of Vāsudeva, and the dancers (the Naccakas P. 191. Trenckner). It is curious to note however that the word Gaṇa is only once used in the sense of a corporation in the Arthaśāstra, and in the Mahābhārata, it is used in the sense of a political corporation. From the evidence of later literature and of inscriptions we know that some of these Gaṇas were powerful corporations of traders or merchants.

Words denoting guilds.

Gaṇas.

As to the word Saṅgha, it is used in the sense of a religious corporation in early Buddhist and Jain literatures. In the sense of a political corporation it is used in the Arthaśāstra where we find the mention of commercial and co-operative Saṅghas too. (Arthaśāstra pp. 48 and 185). The word is used in the Mahābhārata in the sense of a political confederation. The Yādava confederation is called a Saṅgha and Śrī-Kṛṣṇa is called a Saṅghamukhya.

Of these four words, two, viz. Gaṇa and Saṅgha were thus

used to denote any corporation, e.g. unions for political or other purposes. But from evidence which we have at our disposal we know that the words Pūga and Śreni (Seni) were generally used to denote corporations of merchants, artisans of work-people or other unions whose main object was to gain wealth by trade or industry. Some of the Śrenis however became powerful corporations and came to have troops of their own. This is proved by the evidence of the Mahābhārata and the Artha- stra (see Āsramavāsika Ch. 7 ; also Arthaśāstra P. 341).

THE IMPORTANCE OF THE GUILDS :—From the evidence at our diposal, it would appear that the age was one of great corporate activity. Alike in politics as in social and in economic life we find the influence of corporate organisations. The causes which led to the formation of these bodies are not far to see. First of all, there was the need for protection against the tyranny of princes and other powerful individuals ; then, there was the desire for the attainment of proper opportunities for the realisation of the aims of life. These led to the formation of these bodies which became powerful enough to ensure their own protection and to check the high-handedness of men in power. Their power was felt and Kauṭilya in the 4th century B. C. refers to the danger of provoking these bodies and says that corporations (lit. men banded in leagues or unions—Śreni-manuṣyāḥ) are intolerant of calamities (oppression?) and are perverse (viparītāḥ) and it is dangerous to provoke their anger (kope mahā-doṣaḥ).

Power of the guilds.

From the early Buddhist books and the Dharmasūtras it would appear that the chief industries were all organised in guilds (see Rhys Davids, Bud. Ind. p. 90 ; J. R. A. S. 1901, p. 865) and the word which is generally used to denote these guilds is Śreṇi (Seni) and Pūga. Very little is known however

as regards their constitution or internal organisation from the earliest books. Only stray informations are furnished. Thus, according to the Vinaya Piṭaka, the guild was entitled to arbitrate on certain occasions, in disputes between its members and their wives (Vin. IV. 226). In the Aṅguttara Nikāya we find the word Pūga-gāmaṇika, which means the head of a guild (Gāmaṇī—leader). Of the Dharmasūtras, that of Gautama refers to the validity of laws and customs established by the guilds of cultivators, traders, usurers, herdsmen, artisans, and craftsmen (Karavaḥ—Gau. XI. 20. 21). Vaśiṣṭha speaking of the validity of Jātidharma probably refers to the customs of these guilds (Vas. 17. XIX. 7.) It is probable that in the days of Vaśiṣṭha, the guilds were corporate bodies whose existence and whose customs and privileges were recognised by the kings of those days. According to the same authority, the heads of guilds occupied a high place in the royal tribunals.

Laws and customs of the guilds.

The Arthaśāstra, too, which was composed in the 4th century B.C. gives us valuable informations as to the constitution and working of these guilds. From the evidence of all these works it would appear that there were guilds (Saṅgha, śreṇī, Nikāya) of artisans, craftsmen and work-people. We hear of guilds of weavers, of washermen, of goldsmith, of brasiers, medical practitioners and of labourers.

As to the constitution and organisation of these bodies, we get more information from the Jātakas, which seem to have preserved old traditions relating to these. In these we find repeated mention of the 18 guilds, which are designated by the word Seṇī (Seniyo) and from these we know further that each of these guilds had a chief (Jeṭṭhaka or Pamukha), though we have nothing which enables us to find out the distinctions between the functions of a Jeṭṭhaka and those of a Pamukha. The word Jeṭṭhaka may be rendered into English by the word Elder

or Chief. We hear of a Kammāra-Jeṭṭhaka (387. Suci. Jat.) Mālākāra-Jeṭṭhaka (Kulmasa. Jāt. 415), Vaḍḍhaki-Jeṭṭhaka (see Samdda-vāṇija-Jat. 466) and Satthavāha-Jeṭṭhaka (Jaruda-pāna no. 256). We hear even of thieves, and of caravan-guards having their guilds ruled by Jeṭṭhakas. Thus in Satapatta Jāt. (279) we find mention of a Jeṭṭhaka who, being the leader of 500 thieves and outlaws, excercised a great authority over its members.

Constitution or organisation.

These guild-heads were often great favourites of the kings and in the Uraga Jātaka (154) we find two guild leaders, as being included among the Kosala mahāmatras. In the Sūcī Jāt., the leader of the black-smiths is described as a Rājavallabha of those days. They were the exponents of class interests and often represented the interest of the guilds before the king. In one of the Jātakas (No. 445) we find one of these headmen appointed as a lord of the royal treasury. Men of the guild often assembled to settle disputes. The guild had the power of arbitration in cases of dispute between members and their wives. Guilds could take apprentices who were often rewarded for their intelligence and merit. According to Rhys Davids, disputes between one guild and another, Seni-bhaṇdana (see Uraga Jāt, 154) were in the jurisdiction of the Mahāseṭṭhi or the Lord High Treasurer, who acted as a sort of chief Alderman over the guilds (Rhys Davids, Bud. India. p. 97).

Position of elders.

VI

LOCALISATION OF INDUSTRY AND INFLUENCE ON TOWN LIFE

Trades and industries were thus localised either in separate villages or in particular portions or suburbs of the towns. In early literature we have very scanty information as regards this, but we may infer that this localisation of industry was completed with the establishment of the guild. In previous chapters we have many times referred to the caste and craft villages. In certain cases when a village consisted mainly of the craftsmen of a localised industry, the office and functions of a guild-leader and a village-headman were vested in the same person (see Jāt no. 387, which speaks of the head of the village of 1000 smiths being a favourite of the king of Benares).

Influence on towns.

The influence of the rise of the guilds on the city was immense. Thus, the city became an agglomeration of several quarters, each designated by the name of the prevailing industry in that quarter. We have referred to this in some previous section. Thus we have mention of "an ivory-workers' street," "the smiths' quarter," "the weavers' quarter" "the Vaisya quarter" etc. This gives us a picture similar to that of medieval European towns. Even now in many Indian cities we find practically the same state of affairs. Unfortunately for us, the material at our disposal is so scanty that we are not in a position to give a picture of the city arrangements in those days. In the Arthaśāstra we have more precise information on this head.

In all important matters, the guild interest came to be consulted. Their customs were recognized and the guild-heads sat as assessors in judicial cases, and their opinion was freely taken by kings. They fixed their own profits or wages. Beyond this our information does not go and we know not whether the guilds influenced the economic condition of the city any further, by their privilege of controlling the supply and price of articles. Probably these never came to be regulated by the guilds. Similarly, we do not know the conditions of entrance into guilds or other interesting details.

CHAPTER IV

I

TRADE AND COMMERCE

In this period there was a great development of commerce, both internal and external. Foreign trade developed. One of the Sūtras of Paṇini refers to trading with islands (cp. Dvaipyo vaṇik IV. 3. 10) From other Sūtras we know of merchants trading with certain parts of the country (VI. 1. 13).

In the earliest literature of the Buddhists and Jains, we meet with the word V ijo meaning merchants in general. Some of these merchants traded with foreign countries and carried their goods in their own vessels (Samudda-vaṇijo). The Nikayas, too, speak of sea-voyages to distant foreign lands but details are lacking until we come to the period during which the Jatakas and other later books were composed. As to circumstantial evidence, there are supposed references to Indian goods in foreign literature which go to confirm the existence of a commercial intercourse with the people of Western Asia. Thus, in Homer we find the word Kassiteros meaning tin, and this is an exact echo of the Sanskrit equivalent for tin (Kastira). In the book of Kings (see 1 Kings X. 11-22; Old Testament) we have references to goods brought from Ophir by the ships of Solomon. Of these, the equivalents for three things e.g. Tukheim for peacock, Kof for monkey, and Shenhabbim for Ivory are distinctly non-Hebrew and bear a close resemblence to Sanskrit and Malayalam words (e. g. Tukkim—Tamil, Tokie or Skt. Sikhi; Kof—skt.—Kapi; habbim-skt. ivha) denoting these three things (see Max Müller

Science of Language Vol. II. p. 186 and 188 ; also Grammar of Dravidians Languages by Caldwell, p. 91).

Philological evidence.

This led to the identification of Ophir of the Bible, with Supāra or with Abiria on the west coast of India. Again, Dr. Bühler's discovery that a large number of letters of the Indian alphabets (Brahmi) bear a close resemblance to certain letters on Assyrian weights and the presence of some of those on the Mesha inscriptions of the VIIth. and IXth. cen. B. C., presupposes an extensive commercial intercourse existing between India and the regions about the Semitic lands in the neighbourhood of Sumeria and Syria. Mr. Kennedy in his article published in J. R. A. S. 1898 has proved the existence of an extensive commerce between India and those portions of Western Asia about the 7th. century B. C., though according to him, there is no archaeological or literary evidence of a trade with India previous to the VII. cen. B.C. The evidence of some of the Dharmasūtras goes to prove that sea voyage was not unknown among the Indian Aryans. Thus Bodhayana (see Ch. I) in enumerating the condemned practices of the north, speaks of the existence of the custom of making sea-voyages among the northern Brahmins. As to the evidence of the Jātakas, one of these stories speaks of a voyage to Bāveru, (Babylon) another (the Valāhassa) describes a voyage to Tambapaṇṇi (Ceylon). These have already been mentioned. (See J. R. A. S. 1898 also Bud. Ind. p.p 115 and 16) Another Jātaka (the Mahajanaka) refers to the voyages of merchants to the land known as Suvaṇṇa-bhūmi, and now identified with portions of the Indo-chinese peninsula. The Losaka (41) the Sīlānisamsa (190), the Valahaasa Jāt. (196) the Dhammaddvaja (384), the Catudvara (439) the Supparaka (463) the Samuddavaṇija (466) the Paṇḍara (518) and many other Jātakas, give us too vivid descriptions of the difficulties of sea voyages, or the

Jatāka evidence.

distress of mariners, on the ocean, to be regarded as mere fabrication.

Trading vessels.

From the Jataka evidence we may come to the conclusion that the vessels were of fairly considerable size. One Jātaka indeed, the Samuddavāṇijo refers, to the voyage of 1000 carpenters, all in one vessel, but this may be taken to be an exaggeration. The vessels were of three masts (Kūpaka ; see Sīlanisamsa Jāt. 190) and carried sails and anchor, (laṅkāra), riggings (yottāni) and other contrivances.[1]

The ports of departure were many. The Losaka Jātaka (41) speaks of the port of Gambhira (Gambhīrā pattana). Bharukaccha, Roruka, Suppāraka, Kavira-pattana were the other ports of departure of vessels. Some of the merchants indeed carried on a coasting trade, while others journeyed across the ocean. At sea, vessels were under the command of Niyāmakas, and were guided by skilled mariners, who noted the position at sea by marking the position of planets and stars (Vannu-patha). The compass was unknown, and consequently it was difficult to find the direction in which the vessel was steering. In times of danger, when there was no sign of land, crows were let lose (see Bāveru and Dhammadhvaja. 339 and 384). Marines were often ship-wrecked and cast on unknown islands. Occasionally vessels suffered from submerged rocks or marine volcanoes. The Jatakas tell us practically nothing about the principal commodities. Probably the exports consited of Indian cotton, (as we know from the word Sinthus in Assyrian, standing for cotton goods), birds—(e g. peacocks ; see Bāveru Jāt.) ivory and other raw produce of the country.

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[1] The Saṅkha Jātaka, speaks of a vessel 800 cubits long. The Mahāunmagga speaks of 300 wrights building ships. The dimensions given above are evidently exaggerated.

II

INTERAL TRADE

The commerce of those days may be considered under three separate heads.

e g. (1) Trade between distant country parts.

(2) Trade within local areas.

(3) Retail trade in cities and in villages.

I. Trade between distant country parts was in the hands of adventurous merchants, who led great caravans from one part of the country to another. Most of these caravans, followed the great trunk roads, while some merchants used river-traffic in exporting their goods. The goods carried, included the best metal-wares and weapons of Dasārna, the fine muslin of Benares and the ivory works and ornaments of the East. Many specialised in the trade of one commodity. Thus some merchants traded in spices, others as we find from Paṇini, carried salt from one part to other. Merchants from the banks of the Indus brought horses to other cities.

Caravans.

The caravans consisted of bullock-carts, laden with goods attended by the owners, and were guarded by their followers. We have repeated mention of caravans consisting of 500 and even of 1000 bullocks. Merchants travelled long distances to reach their destinations. In one Jātaka, we find a merchant travelling from Śrāvasti to Rājagṛha. Another mentions ivory-merchants of Benares moving to Ujjain (see Guttila 243). The Gandhāra Jātaka refers to the journey of caravans from Videha to Gandhāra, a distance of more than 1200 miles.

CARAVAN MERCHANTS :—Most of these Indian merchants who moved with their goods in great caravans from one part of the country to another, elected one of their members as their leader and this man was called the Satthavāha or carvavan-leader. The Jātakas describe the difficulties of these caravan-merchants. Robbers often looted the caravans. The Satti-gulma Jāt, refers to the village of 500 robbers whose profession was to loot caravans. Moreover according to the testimony of these books, these merchants combined for the purpose of a long Journey, had their own caravan-guards for the protection of their lives and goods and these were paid by the caravan as a whole. These caravan-guards are repeatedly mentioned in Jātakas. Occasionally, we find Brahmins acting as caravan-guards. (see Dasa-brāhmana. Jāt. 495) In deserts or in unknown places the land-pilots consulted the stars. During the heat of summer, merchants rested during the day and proceeded with their journey at night. Occasionally they (see Jāt. 84) had to cross deserts or dense forests. The trade-routes which were used by these caravans have already been described.

Organisation.

Other merchants carried their goods on board vessels, and this use of water-traffic for purposes of trade is proved by the Jātaka evidence. Thus from the Cullaseṭṭhi Jātaka, we know of a merchant who took a vessel to Benares, while the Mahājanaka Jātaka suggests that in those days the Ganges was navigable by river crafts of considerable size, and merchants from big cities on her bank came down right up to the sea.

The halting places of these cavavans seem to have been marts of exchange, where many of the merchants sold or exchanged their goods. From these towns these goods were redistributed to the inland regions and probably

the cities were also the centres to which local products were carried for sale and exchange.

II. Distribution of local produce: For the distribution of local produce, these were sent either to the great cities or to the Nigamas or the market towns.[1] These seem to have been frequented not only by the small dealers but also by wholesale purchasers, who purchased in those markets. The price of articles was settled as a result of haggling (See Bāveru Jat.) between the parties and it seems to have varied according to demand and supply. We have instances of whole-sale purchases, though the information on the head is rather meagre.

III. For local sale both retail and whole-sale, there existed shops (Āpaṇas) in the cities. These shops were mostly owned by single merchants.

Of merchants some specialised in the trade of single commodities. Of such Paṇini refers to salt-merchants, and spice-merchants, (Lavaṇika, Salāluka ; IV. IV 51 to 54). In addition to these, there were retail shop-keepers, who had their shops (Āpaṇa) in villages or towns and sold various articles of every-day use, and also retail traders and hawkers who moved with their goods on carts or donkeys (see J. R. A. S. 1901, p. 873). As to the shops (Āpaṇa, Panyāgara), we

Shops.

hear of some for the sale of the textile fabrics, groceries, and sellers of flowers, grains, and other articles. Hotels and taverns too existed.

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[1] It is difficult to find out the exact meaning of the word Nigama. Mrs. Rhys Davids. (J. R. A. S. 1901), denies the existence of markets or of market-towns. According to her "no clear references to market places in towns or market-towns or to markets as periodical or permanent are found; nor any word equivalent to market is as yet forthcoming." Also "there is no mention in the Jātakas of any rural institution resembling the still surviving barter-fair or haut."

(see Vin. II. 267 ; IV. 248 and 249). Slaughter-houses, ale-houses, and hotels for the sale of cooked meat and rice existed. As regards these last, we have repeated mention in the Arthaśāstra and some early Buddhist works (see Arthaśāstra book II, and Vinaya. I. 20, II. 267. D. 22). The Arthaśastra mentions slaughter-houses for the sale of meat, drinking-houses, ale-houses, hotels, shops for sale of cooked rice, meat, and other kinds of food. (Note the words Paṇyagara Audanika, Pakkamāṃsika).

Sellers of vegetables and other minor commodities brought their goods and halted at the city-gate and hawked thence for sale. So also hunters and fishermen brought meat and fish from outside to the markets in the town or carried from door to door.

NO REGULATION OF PRICES :—As yet, however, there is nothing to prove a regulation of prices as we find in the Arthaśastra or in the later Smṛtis. According to the Jataka evidence, purchases on behalf of the king were made by a royal officer, and the price of these was settled by a man named "Agghakaraka" or the court-valuer. Whether this was the germ of the later system of price-regulations by the king we do not know. As a matter of fact, we have no mention of such interferences by royal officials, neither in the Dharmasūtras nor in the Jātakas, nor in older Buddhist records.

Official valuer.

LEVY OF DUTY :—This valuer or Agghakaraka, according to the Jātakas, also assessed the toll on articles. e.g. of a twelvth on local produce and a tenth on imports from abroad. The toll was collected by the Valipragrahakas and other minor officials. On wines, a duty was levied and this was often collected by the village headmen.

BUSINESS ORGANISATION :—Apart from business or commercial dealings conducted by single individuals, we

find some information as to existence of joint undertakings. Men often joined each other, till the completion of their journey. Thus from the Jātakas we learn that caravan merchants or sea-traders united for this purpose. Several Jātakas e.g. the Cullaseṭṭhi Jātaka (No. 4), the Kūṭavaṇija, (No. 203) the Serivānija, Mahājanaka Jāt. (No. 539) Mahāvāṇija (439) and the Jarudapāna Jāt. (No. 256), all seem to testify to the tendency of merchants to unite together for specified commercial undertakings.

Thus the Cullaseṭṭhi Jāt. (no. 4.), describes the joint purchases made by 100 Benares merchants from a young man who had purchased the contents of the ship by depositing his ring. The Kūṭavāṇija Jātaka describes the union of two merchants from Benares, who had taken five hundred waggons of merchandise with each. At the end of the transaction we find one of them claiming a double share, which however was disallowed by the other party. Similarly the Suhanu Jātaka speaks of horse-dealers of north, who carried on their transactions jointly. Likewise the Serivāṇija Jātaka (No. 3) gives us the story of two hawkers carrying on business jointly and dividing the profits between them. The Mahāvaṇija too, gives us the same information e.g., of merchants joining together and going out in search of treasures under an elected leader. The Mahājanaka Jātaka speaks of similar agreements among sea traders. The Jarudapāna (256) gives us some more information and tells us that not only did the merchants proceed jointly, but divide a treasure-trove among them, showing the nature of the union.

Joint undertakings.

But here one important question comes up for discussion. With the scanty information at our disposal we cannot as yet make ourselves sure, as to whether these joint undertakings were of a permanent nature, or they were temporary unions which ended with the end of the undertaking. As yet the evidence at

No joint-stock companies.

our disposal points to the possibility of these being of the latter type. This appears to us from the instances of Sambhūya Samutthānam in the Arthaśāstra where all such undertakings are mostly of a temporary nature.

Probably, real and permanent business organisations or joint-stock companies, which we find in the later Smṛti works, as yet did not arise. But anyhow these may be regarded as the forerunners of later partnership organisations and of joint-stock companies. The great development of trade led to their legal recognition in later periods.

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CHAPTER V

OCCUPATIONS

The rise of the industries, as also the development of trade diverted a large number of men to these new means of livelihood. Agriculture, though it remained the occupation of the mass of the population, lost its main attraction, and men began to crowd in cities, attracted by the luxury and finery of city life, by the chances of getting employment, and by other facilities. The land-less found a greater opportunity in the cities where they obtained employment easily. Labourers and artisans too organised themselves and with the advancement of complexities or the requirements of division of duties were subdivided into sub-groups. Diversity of occupation too had an influence on the social organisation, as we shall explain later on.

Rise of sub-sections.

As to the various occupations, in addition to those mentioned in connection with the different, branches of industry there were men of other occupations—men not connected with agriculture or any of the important branches of industry, but whose services were important to the cummunity. The greater number of these, had come in to existence towards the close of the Vedic period. Subsequently more new occupations arose. Most of these had their own guilds and their own regulations. The following is a list of the professions and intellectual and cultured occupations.

I. 1. The Physicians, Surgeons, Child Doctors : (Vejja, Komāravacca). These men were often highly paid.

Thus, Jivaka obtained a fee of sixteen thousand pieces for curing a Seṭṭhi's wife (Vin. I. 272).

2. Astrologers—soothsayers, omen-readers, magicians, performers of spells etc :—As in the Vedic period these were mostly Brahmins. The Brahmajāla Sutta describes Buddha's violent attack on those people, since they preyed on the ignorance of the ordinary people.

3. Various orders of Brahmin Priests whose business, earnings, and luxury, Buddha condemned.

4. & 5. Clerks and Accountants.—Lekhaka and Gaṇaka. Very little is known of these.

6. Teachers :—These were highly paid by rich pupils, who on completion of their studies used to pay big fees—often 1000 kahapaṇas. In the the various centres of learning which existed in those days these teachers had their independent establishments. Students from all parts of the country flocked to them. According to the tradition in the Jatakas, Taxila and Benares were the great educational centres of those days. The people of Benares maintained poor students (Punna-sisya).

II. Next to these intellectuals, there were others, who not connected with productive industries, earned their living by amusing rich people or ministering to their habits of luxury. As before, we hear of men engaged in dancing and singing, musicians, clappers, acrobats, actors in theatres, courtesans, professional boxers, wrestlers, story-tellers etc. The word Naṭa meaning an actor occurs even in Paṇini (IV. 3. 110/129).

III. Lastly, there were those who are engaged in various menial occupations. Of these we have as before the barbers, cooks, washermen, bath-servants, (Snāpaka, nahāpaka), shampooers (saṃvāhaka), various grades of army folk, grooms, elephant-keepers,

Menial occupation.

garden-keepers, charioteers, carters, caravan-guards, day-labourers, sailors, hunters, fishermen, butchers and slaves. (D. 1. 51 ; Bud. Ind. P. 88.)

Courtesans lived in cities and exacted big fees from their visitors. Some of them like Ambāpali were rich and far from being despised, held a high position in society. Princes and nobles all vied with each other in paying court to them and honouring them. Ambāpali and Sālābatī were the pride of cities. In the Arthaśāstra we find regulations to control them and an officer was appointed who was in charge of the courtesaṇs of the city. Keepers of gambling-houses too, existed and these were frequented by all grades of people. During the period described by the Jātakas, there was hardly any state control over these. In the next period we find an officer appointed by the state to control these houses. Keepers of slaughter-houses, and alehouse-keepers had a place within the city and plied a brisk trade. Hotels and hotel-keepers too existed, but information is rather meagre.

Occupation, was mainly hereditary, though it could often be changed. From the Jātakas which give us a realistic picture of society we get innumerable instances of such changes in hereditary occupation. But the tendency to follow one's father's occupation is natural and is found even new in our present day society freed from the shackles of old world conservatism. In the Jātakas, we find this tendency amply influencing the ordinary people. Individuals and families are constantly referred to and described in terms of their traditional calling or those of their parents. Thus we find numerous references to families of merchants (Seṭṭhikula; see Phala Jāt. 54). One Jātaka (Visavanta. 69) speaks of a family of Viṣavaidyas (those who treated cases of snake-biting ?). Another refers to a family of Pannikas (growers of

Occupation generally hereditary.

vegetable.—Jat. no. 70) The Babbu Jat. (no. 137) speaks of a family of stone-masons (Pāsana-kuṭṭaka). Similarly we get mention of families of weavers, potters (Jat. no. 178—in addition to those refered to), families of actors (Naṭa Jat. 212) of forest-guards (Jat. no. 265) etc.

Low caste people (Hīna-Jacco ; vasalas) like Candalas, Nesadas, veṇa, Rathakara, Pukkusa, naturally followed the occupation of their family. They had no place in society, and they were looked down upon by men of the higher castes, who would not think of taking to their ignoble professions. Lower craftsmen (Hīna-sippani) too followed their profession. Thus barbers, weavers, basket-makers, potters, andt anners adhered to their hereditary means of livelihood. The Vaiśyas, or the Ambaṭṭhas who are hardly mentioned as such in the Jatakas, found it profitable to continue their own hereditary calling of trade, banking or agriculture. (Jat. 495).

In the case of Brahmins and Kṣatriyas, the majority followed the hereditary intellectual or military callings. Some of the Brahmins distinguished them by their profficiency in the sacred lore, and got help from their students or from kings, or occasionally from localities. Others turned astrologers, soothsayers, omen-readers. Some became priest or chaplain to the king, and trained their children in their occupation. The generality of well-to-do Kṣatriyas, trained their sons in the profession of arms, or entered the service of the king.

Change of occupation.

Those however who could not earn a livelihood from these, took to the occupations of the Vaiśyas and Śūdras. From the evidence of the Dharmasūtras, it would appear that men of higher castes often engaged in the occupation of lower castes. Thus the Sūtras prescribe agriculture, cattle-rearing or trade (except in some commodities) for Brahmins and Kṣatriyas. The evidence of Buddhists books especially that of the Jatakas which give us a realistic picture of the society

of those days, proves the same (Rhys Davids' Buddhist India. Ch. IV. on social grades. p. 54). Thus in the Sara-bhanga Jāt. (522), we find the son of the Purohita training 58) as an archer and soldier. The Dasa-brāhmana Jātaka (495) speaks of brahmins being engaged as caravan-guards or in still lower occupations (see also 155 and 222). Some degraded brahmins even turned robbers (Mahākanha Jāt. 469). One becomes a hunter (Cullanandika. 222). We find brahmins engaged in agriculture (Jāt. 211 and 354) and tilling the land with their own hand, while others reared goats and sheep (413 and 495). One brahmin seems to have become a carpenter (Jāt. 475).

In the case of Kṣatriyas too, we find similar deviations from hereditary occupation. Some seem to have engaged in vedic studies and Kṣatriya Mahāsālas are mentioned. Moreover, there are instances of princes turning traders, glorists or cooks or potters.

Generally however trades and crafts were largely hereditary and traders and craftsmen in general trained their own sons and relatives in their own business. In addition to paid servants to assist them, they kept these affiliated apprentices. From the Jātakas we know some thing of the apprentices (Ante-vāsika). The Ante-vāsika was affiliated to the master who was the Ācārya, after the example of Vedic teachers. During the period of training, the Ante-vāsika, like the Brahmacāries had to reside in his master's house and to perform all the duties entrusted to him. He received his food and clothing in lieu of services rendered by him.

Apprentices.

The Vāruni Jātaka, mentions an apprentice to a wine-merchant who was a friend of Anāthapiṇḍada. During the absence of the master (Ācāriya) the work of selling wine was entrusted to him. The Kusa Jātaka (531) tells us of an Ikṣāku prince, who became himself an apprentice

successively to a potter, a garland-maker, and a cook, of the Madra king in order to get an opportunity of coming in communication with Princess Prabhavatī.

Excepting this, other details about the apprentices is rather meagre. In the case of apprentices of intelligence and merit they were rewarded by their master. Thus the Kusa Jātaka, refers to this practice of rewarding of apprentices, and we hear of their getting 1000 Kahāpaṇas (see. Kusa Jāt. no. 531).

CHAPTER VI

I

MONEY AND MEDIUM OF EXCHANGE

In this period, there was a larger circulation of gold silver and coper pieces as medium of exchange. Not only do we meet with the old names of Niṣka, Śatamāna, but we find evidence of the rise of a new and varied currency. Of the older types of currency, the Śatamāna and Niṣka are referred to in many places of the Upaniṣads and the Sūtras. The Chāndogya upaniṣad contains references to a Niṣka necklace which is conferred by king Jānaśruti Pautrāyana to Raikka (IV. 2.). Kātyāyana's Śrautasūtra refers to the Śatamāna (XV. 181 and 182).

The circulation of the Niṣkas and Śatamānas continued, but a newer currency system came into use, with the beginning of the period. The earliest information on this head is furnished by the Śūtras of Pāṇini who as we have shown flourished in the 7th Cen. B.C. Pāṇini mentions the words Kamsa (V. 1. 25 Kāṃsāṭṭiṭhan) Śatamāna (V. 1. 27.—Śatāmāna viṃśatika-sahasra-vasanādan) Kārṣāpaṇa (V. 1. 29.—Bibhāṣākārṣāpaṇa sahasrābhyāṃ) Paṇa, Pāda, Niṣka (V. I. 34 and V. 2. 119; and V. 1. 30). We also hear of the Vista (V. 1. 31.—Vistācca—Suvarṇatolaka) for the purchase of goods. In V. 2. 65 and VI. 2. 55 the word Hiraṇya is mentioned but the meaning is not clear. (In V. 1. 55 Dhanahiraṇyāt kāme). That, all of these were coins, some of silver and gold, others of copper or base-metal we have no doubt, as is proved by the evidence of later works. In the case of Vista however we have some

difficulty since we hardly find the use of the Vista or Suvarṇa-tolaka in later literature. Moreover the evidence of Paṇini, is really significant and proves in clear and unmistakable terms, the practice of stamping impressions on coins. The Sūtra in question is V. 2. 120. (Rūpādāhata prasaṃsayoryap) where we get the rule for the addition of the yap suffix on the word Rūpa to designate both a coin-piece bearing impressions, and also to signify a man of fine appearance. Āhata has been explained by the Kaśikā commentary, as bearing impression by stamping "Nighātina—tāḍanādinā, Dināraādiṣu rūpam yadutpadyate tadāhatamucyate (see Kaśikā on V. 2. 120). These stamped coins known as Rupyas or as they are called in prakṛt dialects, Rupiyos obtained a large circulation in the next centuries.[1]

Coming to the Buddhist works, we have repeated mention of the words Nikkha, Suvaṇṇa, Hiraññā, Kahāpaṇa, Kamsa, Pāda, Māsaka Kākanikā which all designated pieces of gold, silver or of other metals used as mediums of exchange. In addition, there were pieces of intermediate or fractional value. Thus we meet with half-Kahāpaṇa or quarter, and Suvaṇṇa-māsakas.

Nikkhas—of these, the Nikkha, Suvaṇṇa and Hiraññā were of higher value and presumably coins of gold. The Nikkha, was a coin equal in weight to that of 5 Suvaṇṇas according to the evidence of the early Pali literature i.e. 5×16 māshakas $= 400$ ratis. The Suvaṇṇa was equal to about $5 \times 16 = 80$ ratis. That it was a gold coin appears from its very name, "gold" and

Suvaṇṇa and Hiraññā.

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[1] The attention of scholars was drawn to this Sūtra by the late Dr. Goldstücker (see Numismata Orientalia P 39, note 3). This question of stamping has been discussed very exhaustively by Prof. Dr. D. R. Bhandarkar in his Carmichael Lectures on Indian Numismatics (2nd Series.)

this compares very favourably with the names "Aurei" or the "Louis d'or." In addition to these, we find the word Hiraññña. Now it is very difficult to decide the sense in which the word is used. Mrs. Rhys Davids (J R A S. 1901.) comes to the conclusion (after comparing some passages in which Suvaṇṇa and Hiraññña occur side by side—e. g. Vin III, 219) that they signify gold coins and unstamped bullion respectively. Hiraññña perhaps stands for gold in any form, coined or not. A gold-piece of lower value was the

Suvaṇṇas and Hirraññña.

Suvaṇṇa-masaka, which though not mentioned in any of the canonical works, occurs more than once in the Jatakas. Thus the Udaya Jataka, mentions Suvaṇṇa-masaka in connection with the attempted tempting of Udayabhadda by her former husband. Again in the Samkhapala Jataka, we find another mention of the Suvaṇṇa masaka. We do not as yet know whether there were other gold pieces of intermediate value. (Car. Lec. II. P. 52.)

One important point to be noticed in this connection is the almost entire absence of the mention of the Satamana. This may be explained as being due to the general acceptance of the standard weight of 80 ratis in the various localities of northern India.

THE KĀṚṢĀPAṆAS :—The next class of coins which obtained general acceptance was the Kahapaṇa, and its fractional parts. This Kahapaṇa or Karṣapaṇa was so called because it was of the weight one Karṣa of metal of which it was composed.

This Karṣapaṇa seems to have been synonymons with the Paṇa if we are to take the opinion of Manu, but there will remain room for the gravest doubt in accepting his opinion (Karṣapaṇastu vigñeyo tamrikaḥ Karṣikaḥ Paṇaḥ) This question will come up for discussion later on. We go on however with the determination of the nature of the Kahapaṇa. The mass of the evidence furnished by the

Jatakas and other portions of the Pali literature seems to support the view that the Kahāpaṇas were mainly of copper and these were most widely in circulation in connection with transactions of every day life. Thus when we find the daily wages of an actor put down at 1000 Kahāpaṇas, when we find the daily earnings of a tailor computed at 100 Kahāpaṇas, when we find mention of the rate of carriage-hire put down at 8 Kahāpaṇas per hour, when we find a fisherwomen fined eight paṇas for a small offence, in all probability the Kahāpaṇas mentioned must be taken to be copper Kahāpaṇas. Some cases however present difficulty and seem to raise the doubt that there were

Kahāpaṇas of silver and gold.

Kahāpaṇas of silver or gold also. Thus in Nanda (39) and Durājāna (64) Jātakas the price of a lamb is put down at 100 Kahāpaṇas while in the Gāmanicaṇḍa Jāt (257), the price of a pair of oxen is expressly stated to be 24 Kahāpaṇas. In this latter case if we take the Kahāpaṇa to be copper, then the price seems to be not only low but ridiculous. Here silver Kahāpaṇa seems to have been suggested. The existence of silver-coins of this value is proved by the evidence of Manu who mentions Silver Purāṇas or Dharaṇas, though these are never called Karṣāpaṇas, The existence of silver Kārṣāpaṇas is further proved by a passage of the Nārada Smṛti (See Vīramitrodaya. P. 235 Rājato'pi Karṣāpaṇo dakṣinasyam diśi prāvartata). Two more instances from the Jātakas may be quoted to prove the existence of gold Karṣāpaṇas. Thus when the brahmin (in Sīlamimāmsā Jāt. (18) steals Kahāpaṇas from the house of the Heraññiko, and when the wife of a Benares merchant exhausts her forty crores of Hiraññā by giving away Kahāpaṇas, every day, we may come to the conclusion then they were of gold. The assumption as to gold Kahāpaṇas is thus borne out by facts and its non-occurence is explained by the tendency of common people using the word rather loosely without reference to the metal.

Most of the names of these coins mentioned above have reference to a certain weight and Mrs. Rhys Davids following Manu (VIII. 134 to 136) prepared a table of the weights of these pieces and approximately ascertained their value.

According to her :—

146 grains of Gold—16 gold Māṣas—1 Suvarṇa
„ of silver—16 silver Maṣas—1 Dharaṇa[1]
„ of copper—16 copper Maṣas—1 Kārṣāpaṇa

and from this she arrived at the conclusion that—

1. Suvarṇa was equal to that ... £1. 5s.
1. Dharaṇa ... ... 9d.
1. Kārṣāpaṇa ... ... 1d.

From the evidence of the Manusamhitā and the later Law Books the weight of silver Purāṇa was $\frac{32}{96}=\frac{1}{3}$ of a tola. Hence according to the present price of silver it would amount to $\frac{1}{3}$ of a rupee or about $5\frac{1}{3}$ annas.

In the case of copper, it is clearly to be noted that the weight of a copper Kārṣāpaṇa was equal to that of a Suvarṇa. Hence the weight of each was $\frac{80}{96}=\frac{5}{6}$th of a Tolā. Its value according to our present copper standard was thus less than 2 pice.

This reference to the weight of the silver coins, as given by Manu is indeed very interesting. For, when we come to the evidence furnished by authorities occupying an intermediate position in point of chronology, we note that in the days of the author of the Arthaśāstra, this silver Purāṇa or Dharaṇa, was equal in weight to that of 88 white mustard seeds (Aṣṭāśītigaurasarṣapāḥ Rūpyamāṣakaḥ) multiplied by

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[1] In the case of silver we find an error in Mrs. Rhys David's table since two Kṛṣṇalas (2 ratis) make one silver Māsaka. Hence in the case of silver the weight was 32 Kṛṣṇalas.

sixteen. Now 18 Gaura-sarṣapas make one Kṛṣṇala. Hence a Dharaṇa was equal to 80 Kṛṣṇalas which is practically the same weight with that of Suvarṇa.[1]

Stamping.

The Kārṣapaṇas, were of various shapes and bore many symbols. They were square, rectangular or circular. As to the practice of stamping, we have already referred to it. The evidence of Pāṇini has already been cited. The Pātimokkha too refers to it in more than one place (V. 18. V. 19).

In those days, symbols or punches were stamped on them, either on one side or on both sides, as we know from specimens which have come down to us. While coins of gold have not reached us, we have innumerable specimens of silver and copper coins bearing Punch-marks. The symbols were numerous, and represented the peculiar signs of localities, banking-houses, or guilds.

Antiquity.

The Kārṣāpaṇas, originated, probably as early as the beginning of this period. They have been referred to the 10th Century B. C. by General Cunningham. Prof. D. R. Bhandarkar, in his brilliant lectures on Indian numismatics would refer them to an even earlier period, though some other scholars like James Kennedy or V. A. Smith would refer their introduction to the VIth Century B. C. when trade with the Semitic countries came to be developed.

A discussion of the nature and origin of these coins is beyond the scope of Economic History. But this much may be said in passing, that there is nothing which goes to prove that they were anything but of indigenous origin. Even during the vedic period, an indigenous currency had

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[1] See Prof. Dr. D. R. Bhanderkar's Carmichael Lectures on Indian Numismatics Lec III P. 91-94. He has discused the subject, clearly and exhaustively and was the first to find out this discrepancy, and to give an explanation. His lectures are a valuable contribution to the subject of Indian numismatics.

come into existence and this was based on the weight of the Kṛṣṇala. The unit of weight in the case of the Kārṣapaṇas, was also this Kṛṣṇala and nothing else. The practice of stamping or of putting symbols, was of indigenous origin and far from being borrowed.

As yet, there is nothing to prove that there was any central authority which regulated the currency. The determination of the value was by weight and fineness of the metal. (for a discussion see J. R. A. S. 1901 P. 878 and 871). Almost all the money-pieces, mentioned in previous pages, seem to refer to a system of weights, the lowest unit of which was the Kṛṣṇala or rati.

Weight of coins.

On the basis of this unit, two systems, came into general acceptance. The one reckoned the weights of the coins of the highest value at 100 Kṛṣṇalas, while according to the other 80 Raties became the standard weight of all coins whether gold, silver, or cpper. The older Śatamāna standard, thus still continued in some localities, and this is proved by the evidence of the Vinaya Piṭaka which in one place computes one Pāda for 5 māsas. Hence according to the practice of that locality, one Kahāpaṇa—was equal to $5 \times 4 = 20$ (māsa) $\times 5 = 20 \times 5 = 100$ ratis. The same perhaps gives an explanation to the statements in early Pali literature which reckons 5 Suvaṇṇas to the Nikkha. If we regard this Nikkha according to the older standard of 100 Ratis—then 400 ratis $= 5 \times 80 = 400$. Hence 5 Suvaṇṇas made one Nikkha.

We have at present, very little evidence at our disposal, to enable us to determine, as to whether, gold or silver was the accepted standard of currency. Both the standards seem to have existed side by side.[1]

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[1] We have for the present, no means of finding out the relation existing between the various standards. As regards the ratio between

The copper or bronze pieces were used as token coins, or ordinary media of exchange, and their value (was fixed by the) depended on the market. Their purchasing power in a market of abundant supply was very great, as we may know from the affixed table. Even the quarter-paṇa the Kakanikas had a considerable purchasing power. The lowest medium of exchange was the Sippika or the Kapaddaka or the cowrie shell (see concluding verse of Sigala Jataka 113).

Last of all, we must mention the Gopuccha. Paṇini mentions it in more than one place. (P. IV. 4, 6, and V. 1, 19—Ārhat-agopuccha-saṃkhyā-parimāṇad ṭhak). The meaning of this is very difficult to find out and we do not know whether it meant the simple 'cow tail' or a metal piece bearing the impression of the cow tail.

BARTER:—In spite of this wide circulation of metallic currency, barter continued to exist side by side with it. As to barter, some of the Sūtras of Paṇini prove its existence in his time. (See Paṇini V. 1, 26—Sūrpād añṃ anyatarasyāṃ; also V. 1, 27—Śatamānaviṃśatika-sahasra-vasanādaṇ; V. 1, 27—Tena krītam). As examples of these Sūtras we have a large number of words which prove the existence of the practice of exchanging one article for another. Thus we have Vasanam, anything purchased with Vasana, anything bought with Sūrpa—Saurpa; anything bought with the exchange of mudga—maudgika and so on. The continuance of barter, was due to the ease with which husbandmen or ordinary people could exchange their goods readily and easily.

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the values of gold and silver, we are indebted to Dr. D. R. Bhandarkar. On the basis of very reliable evidence furnished by a second century inscription, he has found out the ratio between silver and gold as 14. 1 to 1. This must be regarded as a piece of invaluable service tc the history of Indian currency.

In those remote ages, sale and trade in articles of agricultural production was looked down upon by the higher castes, (e.g., the Brahmins and the Ksatriyas) and consequently we find barter recommended to them. Apastamba and Gautama expressly say so. (Apastamba I. 20. 9.16). Thus while trade is forbidden, a Brahmim is allowed to barter home-grown corn, slave, food, and other articles (see Va. Dh. S. II. 31 to 39; also J.R.A.S. 1901. P. 876). Barter was also prescribed for Buddhist monks and members of the Order since they could neither use nor carry gold or silver (see J. R. A. S. 1901. P. 876; Vin. II. 174; III. 215-223 also Vin. text I. 2. 2. N. 1; see Patimokkha. V. 18. V. 19.). The Jataka evidence, too, confirms the use of barter. Thus, according to the evidence of the Taṇḍulanāli Jātaka, rice was used as standard of value even in the Jataka period.

In addition to these instances of simple barter, we find also the continuance of the cow as a standard of value. Thus, in the Sūtras of Paṇini, we find the formation of compounds according to the rule "Taddhitārthottara-pada-samāhare ca" (II. 1. 51.) and as an example of this we have the word Pañcagu (meaning anything bought with five cows) which goes to prove the existence of the cow standard (of value) in his time. In the Dharmasūtras, too, which fall into this period, all fines for murder are reckoned in cows. Thus Bodhayana, Āpastamba and Vasiṣtha prescribe a fine of a 1000 cows for murdering a Kṣatṛiya. (See Āpastamba I. 21. 1—3. Kṣatriyam hatvā gavāṃ sahasraṃ vairaniryātanārtham dadyat, śatam Vaiśyam daśa Śūdram; see Bodhā—I. 10. 21—22.)

II

PURCHASING POWER OF MONEY.
TABLE OF PRICES.

The Buddhist works place a mass of materials at our disposal, which enables us not only to form an idea as to the purchasing power of money but also about the economic condition of those days. Incidentally, these books tell us something as to the state of the industries, the luxury of the richer classes, the rates of wages paid to workmen, and thus give us a picture of the life of those days.

The Jātakas contain a mass of details of every-day life, but their evidence is not always acceptable. They contain not only exaggerations, but an imaginary colouring of facts. In spite of this however the evidence furnished is invaluable, for even if we make allowances for such, we get something which throws a flood of light on the socio-economic life of those days.

Price of food articles.

The purchasing power of money was high and articles of food seem to have been very cheap. Quantities of meat, green grocery, spirits or other articles, sufficient for a single man could be had even for the copper Kārṣāpaṇa—and according to the Vinaya, a small quantity of ghee or oil could be had for that sum. [Vin. IV. 248—250.]

Clothing.

The price of ordinary clothing was not high. In the Patimokkha, six and ten Karṣas (kahāpaṇas ?) are put down as the price of coarse clothing for monks and nuns. Some Jātakas reckon the price of coarse Cīvaras at I Kahāpaṇa, while that for a

nun is said to cost 16 such pieces. References are not wanting however to rich clothes costing 1000 or even 1,00,000 pieces.

Price of animals.

Cattle and animals, especially those of an inferior quality were very cheap. Thus in the Mahaunmagga Jataka (546), an ass is valued at 8 Kahapanas. Similarly, in the Gamanicanda and Kaṇha Jatakas (257 and 29 respectively) a pair of oxen is valued at 24 Kahapaṇas, presumably of silver.

The price of slaves varied. In the Vessantara Jāt, the price of the accomplished girl enslaved by the Brahmin is reckoned at 100 Nikkhas in addition to cows and other things, while in the Durajana (64) and Nanda (39) Jatakas the price is put down at 100 Kahapaṇas. Here, too, it is very difficult to regard this Kahapaṇa to be of copper, for in that case the price would be too low.

The price of horses is reckoned very high. It varied from 1000 to 6000 Kahapaṇas, and this may be taken to be copper.

Hire ; wages.

The lowest daily wages of a royal servant was 1 Kahapaṇa a day, presumably of copper. In the case of a highly-trained archer, the daily wages are put down at 1000 Kahapaṇas, this being an exaggeration undoubtedly. The fee paid to a barber for hair-cutting and shaving was 8 Kahapaṇas (of copper). Similarly, the fee of a high-class courtesan (Gaṇikā) is reckoned at 50 or 100 kahapaṇas, presumably of copper. Of other such details the following may be mentioned. Cart-hire for an hour at Benares was 8 Kahapaṇas ; a fish of considerable size cost 7 masas (Macchuddana. 288) ; a cup of wine cost—1 masa. Certain articles were noted for their high price. Thus, a chariot is valued at 90,000, Kahapaṇas. For a valuable gem 100 Nikkhas are offered. Sandalwood is spoken of as being very valuable. Of remuneration to teachers, we find 1000,

Kārṣapaṇa, as a moderate average estimate. In one specified instance (the Dūta Jātaka, 478) we find a poor brahmin collecting 7 Nikkhas.[1]

WEIGHTS AND MEASURES

As stated already, the Tulā (Scales) is mentioned in the Yajurveda (Vaj. Sam. XXX 17) and some of the weights e.g. the Kṛiṣṇala, occurs in the Vedic literature. In Paṇini, we have some words e.g. Māṣa, Vista, Āḍhaka, (V, 1. 53) and Droṇa denoting weights and measures. In the Arthaśāstra, there is a list of weights and measures of those days. These were regulated by the state under the supervision of a Royal Official.

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[1] Some more details as to prices are to be found in Fick's work and Rai Sahib I. C. Ghose's introduction to the second volume of the Bengali translation of the Jātakas..

CHAPTER VII

PROGRESS OF CAPITALISM AND RE-ACTION. BANKING; USURY

With the development of trade and industry, there was accumulation of capital in the hands of a class of rich men who became the capitalists and bankers of those days. The word Śreṣṭhi, meaning probably a banker, occurs in the Brahmaṇa literature. In early Pali literature we hear of various grades of (Seṭṭhis) e.g. the ordinary Seṭṭhi, the Mahā-seṭṭhis of big towns, the Anu-seṭṭhis, and of the Uttara-seṭṭhi. (Jāt. 118). The Seṭṭhis of the Buddhist literature were probably rich capitalists, held in high esteem by the townsmen and even by the kings of those days. This would appear from the high position of Anāthapiṇḍada, Mṛgadhara (Migāra), Yasa and others mentioned in early Buddhist literature. The wealth of these people was almost fabulous and in the Jātaka literature we hear of Seṭṭhis, whose wealth was reckoned in Koṭis or tens of million. From the evidence of these books, it would appear that each city contained at least one rich Seṭṭhi, who was designated by the name of the locality in which he lived. Rival Seṭṭhis too lived in the same city. Similarly, Janapada-seṭṭhis are mentioned in one Jātaka (Nigrodha, 445).

The position of the Mahā-seṭṭhis is not quite clear, and it is very difficult to determine whether they were royal servants, or merely held a position of pre-emimence (in view of their great wealth) and the headship of the capitalistic interests of the locality. They seem however to have been intimately connected with the kings. Several Jātakas

speak of their presence in the court of the king (Jat. 59 Punna-pati Jat. 53 ; Illisa, 78 ; Pitha, 337 ; Mayhaka, 390). They seem to have helped the kings by advancing money and counsel in times of distress. As they enjoyed special favour, they were also under the special jurisdiction of the king and entirely depended on him. When any of the Setthis thought of entering the Buddhist order, he had to take the permission of his royal master.

The office of the Maha-setthi was most probably hereditary. In case of failure of male heirs it passed to near relations. The Cullasetthi Jataka mentions the accession of a young man to this post by virtue of his being the son-in law of the Benares Setthi.

The Anu-sehtti seems to have been an assistant to the Maha-setthi. The meaning of the word Culla-setthi is not clear. Some of these were made ministers of the kings and controlled the guilds and trading organisations of the country. They had, according to .most authorities, high position and dignity and were respected by princes.

According to Mr. Rhys Davids, all disputes between one guild and another were under the jurisdiction of the Mahasetthi, who acted as a sort of chief Alderman over the aldermen of the guilds. The evidence of another Jataka, however (e.g., Nigrodha Jataka, 445), proves that the minister named Bhandagarika was entrusted with the duty of settling disputes between all guilds (Sabbaseninam vicaranaraham Bhandagarikatthanam etc.).

In the absence of other details, it is difficult to find out exactly the amount of governmental control over the capitalists and at the same time, the relation in which these stood to the various guilds. Probably the Mahasetthis acted in a double capacity. On the one hand they were the Presidents of the industrial and banking organisations of the city, whose interest they represented in the royal council

while on the other hand, they acted as royal servants and became their councillers and advisers.

Banking.

BANKING :—Clear references to banking during this period are hardly available. We have however references to merchants helping each other in distress without any securities and we hear of deposits with friends (Vin. III. 237). The rise of a system of credits may be pre-supposed from the mention of purchases, by deposit of signet rings (Culla-seṭṭhi Jat. 4) but, as yet, there is nothing to prove the existence "either of fiduciary currency or of collective banking." (J. R. A. S. 1901.). In the next period the word Ādeśa is found in the Arthaśāstra, which probably meant a letter of credit.

Hoarding of treasures.

Ordinary people hoarded their surpluses and kept these concealed under-ground within the house, or put them in cleverly concealed brazen jars. Rich people kept a register of the amount and nature of their hoards in inscribed plates of gold and silver. (See Jāts. 39, 40, 73, 137).

Loans.

Capitalists and bankers lent money on interest. Paṇini in the 7th. century B. C. refers to their transactions and some of his Sūtras seem to refer to the exorbitant rates of interest exacted by some of the money-lenders (see IV. 4. 30. and 31 and V. 1. 47). In his Sūtras we find the words Dvaiguṇika, Traiguṇika, and Daśaikādaśika, which go to prove the great profit exacted by these men. In the early Buddhist books we have no references to rates of interest, and there is nothing in the Buddhist canon (except an occasional slur on usurers in Mahākaṇha Jāt. 469) which denounces usury. On the contrary, the Dharmasūtras forbid Brahmins and Kṣatriyas to practice usury and to take even a usurer's food (Vasiṣṭha II. 40). The exaction of the usurer was heavy. Debtors were often imprisoned for debts. They were not allowed to enter the Buddhist

order and ordination was refused to any candidate who suffered from liabilities (Vin I. 76). Men were often reduced to slavery for non-payment of debts. Thus in the Therigatha, Isidasi, a nun speaks of herself being reduced to slavery in one of her previous births on account of her father's debts. He, unable to pay his creditors, gave her to a merchant in satisfaction of his claim for principal and interest (Therigatha ; See also D. I. 71).

Loans were contracted, either on notes of hand or Iṇapaṇṇani (Likhita ; Vas. D.S. XVI. 10.), or on the deposit of pledges. The deposit of pledges tended to lessen the rate of interest. There are even instances of mortgaging wife and children.

When the loan was repaid, the debtor got back his note of hand. This would appear from the Khadirangara Jataka (40) and also from the Ruru Jataka (482) where we find the highly embarrassed debtor summoning his creditors, along with his notes of hand to the river bank, where he promises to pay them in full but attemptes to commit suicide in their presence by drowning himself in the river. From the evidence of the Gautama Dharmasūtra (Ch. XI. 21.) the usurers seem to have formed a class and had an organisation (guild ; Varga) and certain customary laws of their own which governed their transactions. We know nothing about rates of interest from the Buddhist books, but we find these in the contemporary Dharmasūtras. The Gautama Dharmasūtra mentions six or seven kinds of interest. Of these some may be mentioned e.g., (1) the ordinary legal rate of interest ; (2) compound interest i.e. Cakravṛddhi ; (3) periodical interest to be trebled or quadrupled in case of non-payment during a certain period ; (4) and corporal interest. The ordinary rate is specified at 5 maṣas for 20 Karṣapaṇas, which comes to about $18\frac{3}{4}\%$,

which is not very high. (Kusidavṛddhiḥ dharmya viṃśatiḥ pañcamaṣakı. See Gautama. Ch. XII. 29—35.)

Vasiṣṭha, whose opinion is cited by all subsequent law-givers on interest, denounces the trade of the Vārdhūṣika and fixes rates of interest, according to the caste of the debtor. According to him, interest varied from 2 to 5% per month on loans. It stopped with the death of the king in whose reign the transaction took place (Vas. Dh. S. II. 42 to 50).

The regulation of rates of interest and the denunciation of the Vardhūṣika go to prove the existence of the evils of capitalism, of cornering and the consequent undue raising of prices by dealers in commodities of general use. The evils of capitalism and of cornering led to state-intervention later on, as is proved by the evidence of the Arthaśastra in which we find not only regulation of prices and profits and but laws against cornering and the fixing of rates of interest. According to the Arthaśastra, the rate of interest varied with the risk undergone by the capitalist who lent his money (see Ch. on Ṛṇadana. pp. 174-5).

Denunciation of the cornerers.

According to the law of the period, sons and heirs of a debtor were bound to pay up his debt unles it was contracted for evil purposes (Vasiṣṭha. D. S. XVI. 31; Gau. XII. 40, 41).

CONTRACTS.—Business-contracts were reagarded as sacred and were enforced by the state. The contract for the purchase of the Jetavana monastery and its enforcement is well known to all students of Buddhist literature. During the next period, in the Arthaśastra, we find the law of contract, the law of debt and other allied branches of civil law fully developed.

II

LANDED PROPERTY

LANDED PROPERTY:—Next, we must consider property in land. As shown already, property in land had long become freed from restrictions of communal control and the last vestiges of such an obstruction passed away towards the close of the Vedic period. Land thus was an object of individual ownership. It could be retained in properitory ownership or could be let on lease, either for rent or for a share of the profit. (See Āpastamba II. 21. 1. I. 6. 18.)

Land and fields also became objects of division. While trade and industry drew away a large number to new pursuits, the Brahmins and the agricultural sections confined themselves to cultivation. To the ordinary Brahmin householder, land seemed to furnish all the necessaries of life. Agriculture, though direct participation in it was condemned, was allowed to them if other means of livelihood failed. So was the case with the Kṣatriyas. It was also an object of gift. Some Dharmasūtras discourage traffic in land (Gau. VII. 15.) but the authors of the Dhurmasūtras, attach much importance to cultivation, and if we are to believe in Āpastamba, a man failing to till a plot taken on lease was to undergo punishment and was fined.

While the Vaiśya Gṛhapatis sold their products, the Brahmins and Kṣatriyas had recourse to barter, as described already. Traffic in certain classes of agricultural products was forbidden, but other agricultural products they could freely barter.[1]

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[1] The regulations of the Dharmasūtras forbidding Brahmins to trade are very interesting (See Āpa. I. 21. 10—16; Gau. VII. 8—21; Vas. II. 16—39). Certain traffics e. g. in slaves, slave girls, animals for slaughter, cows, lac, salt, poison and arms are entirely for bidden. In

III

DISTRIBUTION OF WEALTH THROUGH INHERITANCE AND DIVISION.

The Dharmasūtras, our earliest legal authorities, always dwell on the merit arising out of division of all property. Such is the view of Āpastamba and some other Dharmasūtra writers (Gau. and Ap. II. 14).

Āpastamba strongly pleads for the equal division of property and cites the instance of Manu's equal division of property among his sons. Preferential divisions among sons however, was general (see Āp. II. 14, Gau. XXVIII).

In general, sons were heirs to paternal property and this they could divide not only on his demise, but even during his life time, and if the mother was past child-bearing. Daughters too were heirs in some cases, and in regard to maternal property they enjoyed preference to sons.

As m!xed marriages were tolerated, various kinds of sons were recognized. The twelve kinds enumerated in the Smṛtis, were all recognized in society. Some of these were recognized heirs, while others succeeded if the former did not exist.

Various causes were operating for the preferential consideration of the claims of some kinds of sons. Mixed marriages were becoming unpopular and we have clear evidence proving that preferential shares were allotted to sons of wives of higher castes.

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regard to agricultural products, sesamum and rice and according to some, red, and black pepper were forbidden articles of trade. Trade in cloth was forbidden by some, Selling of milk caused degradation in three days. Similarly according to some, traffic in land and all animals was forbidden (Gan. VII. 15).

The tendency to equal division in Āpastamba is worth noticing. Preferential division was already telling on social conditions and came to be regarded as unjust. Similarly, the exclusion of some kinds of sons shows that men were alive to the evils of too minute divisions.

As we proceed, the daughter's claims get less and less support.

Joint families existed, but probably, these were more numerous among the cultivating and artisan classes, and fewer among the wage-earners and those who followed the professions.

Other causes of distribution of wealth existed, e.g., charity and munificence. Of the various castes, the Brahmins received from the princes and people. Charity caused much wealth to flow from the rich to the poor. In the Buddhist literature especially the Jātakas, we have instances of public charity either in the cause of the church or for the poor. Anāthapiṇḍada made gifts to the church, and many such charitable millionaires existed. Gifts to the church, however, became unpopular, as we shall see later on. The village people, too, spent money for local charitable undertakings.

CHAPTER VIII

LABOUR

Labourers were mostly free and worked for their wages. The free labourers (Karmakāra, Kammakāra) entered into contracts as to their works and wages and in cases of dispute wages were settled by experts. The wage-earning labouring class existed in the days of Pāṇini who mentions the words Vetana and Vaitanika (IV. 4. 12). In early Buddhist literature, the Kammakāras are repeatedly mentioned but details are wanting. In addition to these, there were the day-labourers (Bhatikārakas) whose lot was probably harder. Some of the labourers were paid daily or monthly, while others were given food only. In regard to rates of wages something has already been said.

Free labourers.

Next, there were the unfree labourers, e.g., slaves, who are mentioned in the early Buddhist literature, the Jatakas and the Dharmasūtras. Slaves were often employed to serve in their master's household or performing other duties in the field. The causes of slavery were many, e.g., capture in war, judicial punishment or degradation, voluntary enslavement and slavery for non-payment of debt. (See Therigatha, 444 ; also D. I. 60, 92, 93, 104, Vin. I. 72 ; Dialogues of Bud. I. 19). The Jatakas, too, speak of four or five kinds of slaves. Thus in the Vidura-pandita Jataka, we find four classes of slaves, e.g. (a) children of slaves, (b) those who sell themselves to others for food or protection, (c) those who recognise others as their owners, (d) those sold for money.

Large numbers of men seem to have been reduced to slavery, by the raiding forays of robbers who captured men and women and sold them into slavery. Others appear to have lost their freedom, as punishment for heinous crimes—

An instance of such degradation of status is found in the Kulāvaka Jātaka, where the king enslaves the tyrannical headman, as punishment for his crimes. The existence of slavery as a judicial punishment is found even in the Arthaśāstra.

Most of the slaves were domestic servants and were probably well treated, though violence to them was not illegal. They resided in the family of the master and performed all sorts of household duties. Some of the Jātakas bear evidence to their kind treatment. Thus in Jātakas 382 (Sirikālakaṇṇi) and Gaṅgamāla (421) and Uraga Jāt. (354) we find the slaves and slave girls treated as members of the family. The slaves of the Saṅkha-seṭṭhi in Asampadāna Jāt. (131) bear testimony to their kind treatment, and of their loyalty to the ex-master. In the Nanda Jāt. (39), the master shows his confidence in his slave by informing him the whereabouts of his treasure. Again in the Nānacchanda Jāt. (289), the Brahmin consults his slave girl Puṇṇā, as to the nature of the boon he should ask of of the king.

This was however the better side of the picture. In the hands of cruel masters the lot of the slave was of terrible misery. Thus in the Nāmasiddhika Jāt. (97), the master and mistress of the slave girl Dhanapāli, beat her and put her on hire to work for others. Moreover, from the Jātaka evidence, we further know that it lay in the power of the master, to beat his slave, to imprison him or to brand him. This is proved by the Kaṭāhaka Jāt. (125). There we find Kaṭāhaka the hero, a son of the Seṭṭhi by a slave girl. As a young man he had to act as a page to the master's son, and he always feared lest on the slightest offence, the master would beat him, imprison him or brand him. Thus thinking he took the earliest opportunity of escaping from his master's house and succeeded in marrying

the daughter of a frontier Seṭṭhi cleverly inpersonating as the real son of the Seṭṭhi.

We have in the early Buddhist books or in the Jātakas nothing to prove that a master could with impunity take the life of his slave. Probably that right too resided in the master, and this we may infer from the introductory portion of the Cullaseṭṭhi Jāt. (4) where the daughter of the Seṭṭhi feared that the father would cut her and her slave-lover to pieces if he heard of their liaison.

The chief difficulty with the slave was his loss of persona. Nothing except freedom could improve this social degration. The marriages of slave with free-women hardly improved their status. Sons of slaves girls by their masters were hardly regarded as free-men. Thus the Licchhavis never regarded Vāsavakhattiya as a member of the Sakya family, since she was the daughter of a Sakya prince Mahānāma by the slave girl Nagamundā. Stories of intimacy of masters with slaves are common and in the Jātakas we have at least two instanes of a master's daughter falling in love with a slave. Many slaves ran away from their masters, crossed the frontier and improved their position by marrying the daughters of respectable people (125—Kaṭāhaka Jat. and Kalanduka Jat 127).

Slavery was not restricted to a particular class or caste. Brahmins, Ksattriyas and men of high birth were often reduced to slavery. The traditional Buddhist accounts paint Purana Kassapa and Ajta Kesakambali as being slaves in their early life. The Vessantara Jātaka seems to point to the fact that the enslavement of high-born prince and princess was nothing which could shock the social ideas of the day.

In the Arthaśāstra alone (written early in the next period) we find regulations for the protection of slaves from the unkind and cruel treatment of their masters. In addition,

there are regulations for the manumission of slaves on account of ill treatment or their being able to pay their own ransom. The tendency of the Arthaśāstra was to abolish slavery altogether. The Buddhists regarded slaves as the property of their masters and did not allow them to enter the order. Other religious orders seem to have admitted them, and admission into any religious order made them free men. Manumission of slavery was looked upon as an act of virtue. In the Dharmasūtras we find slavery existing though according to Āpastamba, a Brahmin was never to engage in the traffic of slaves (1. 20. 15). He was however allowed to exchange his slave for another. Perhaps, here we may find the germs of that liberal tendency which is so well developed in Kauṭilya.

Price of slaves.

The average price of an ordinary slave was not very high. The preambles to the Jatakas, e.g., the Nanda Jātaka (No. 39) and the Dūrājāna Jātaka, point to 700 panas. In the second Jātaka a man speaks of his "wife being meek as a slave girl bought for 100 paṇas some day, and a terrible termagant some other day." From another Jātaka (402 Sattubhasta we know that 100 Kārṣāpanas was enough for a slave.

The price of slaves varied with their accomplishment, good birth or (if a woman) beauty. In the Vessantara Jātaka the princely father, when parting from his boy and daughter, speaks of the daughter as being only fit for a princely purchaser who could offer 100 Niṣkas, in addition to a hundred slaves, horses, cows and elephants. In the case of the prince his ransom-money was estimated only at 1000 Kahāpaṇas.

The number of slaves was undoubtedly very large, but we have very little evidence to prove that in India slavery ever became the basis of the economic life of the people; on the contrary, free labour predominated.

CHAPTER IX

CLASSES OF POPULATION

1. THE LAND-OWNING CLASSES. These, whose origin towards the close of the vedic period we have already traced, included the nobles who formed a hereditary proprietory class, living on the labour of their subjects and tenants and giving themselves up to amusement or other pursuits. In addition to these another land-owning class existed in the Mahasalas who were mostly Brahmins and in some cases Kṣatriyas. The Jatakas, too, speak of the gift of Bhogagramas to priests. They enjoyed grants of villages made by kings of Kosala and Magadha. In the dialogues of Buddha we find the names of many such people, who received royal bounty in this shape, by virtue of their proficiency in the sacred lore. The agriculturist house-holders were represented by the Gahapatis and Kuṭumbikas of the Pali literature. Most of these like Bharadvāja or Dhaniya owned big plots of land and cultivated them. The majority of them were well off and happy, and were men of wealth and substance. Some, however, seem to have fallen on evil days and had to work as labourers (Sutano Jat. 398).

2. THE MERCHANTS. Though fewer in number they were perhaps the wealthiest section of the community, and made large gifts to the poor or to the religious orders. Some of them had huge fortunes always estimated in koṭis.

3. THE ARTISANS (men of the guild) :—These were freemen and enjoyed a considerably high social position. Their wealth was considerable and they were above the reach of poverty. Their corporate organisations made their position stronger.

5. THE WAGE-EARNERS AND MEMBERS OF INDEPENDENT PROFRESSIONS. This class which must have been a considerable one included men who followed the occuption of physicians, teachers, accountants, and priests. This class was not generally very wealthy but was above want. Occasionally, some of these made good fortunes (note the instance of Jivaka the physician, who got a fee of 16,000 gold pieces) Teachers mainly depended on the fees paid by students and occasionally received big sums. 1000 Karṣapṇas was the amount generally paid on the completion of study.

6. POORER LABOURERS, SLAVES AND ABORIGINES. The condition of these classes was not very enviable. They often suffered from want and had to depend on others. Often they sold themselves to slavery.

In point of wealth and social importance arising therefrom, the princes, the nobles and land owners as well as the Śreṣṭhi bankers, and merchants occupied the highest position. Next in importance were the middle class house-holders and Gṛhapatis owning and cultivating their own fields, the artisans and the ordinary traders. Below these were the poorer cultivators of the soil, men engaged in lower arts (hina-sippani) and the labourers and servants. At the bottom of the society were those who lived by hunting, or gleaning the fields, the aboriginal tribes and the slaves who were regarded as the property of others.

II

WEALTH : LUXURY : CHARITY

The general wealth of the community was high and this is proved by the stories of the hoards of bankers and merchants, the large use of gold and silver money, and the luxury of the upper classes. The hoarded wealth of the rich was estimated in koṭis, and they spent it liberally. Their munificence is apparent from stories of large donations to the various religious orders and the establishment of almonaries. Thus in Khadirangara Jat. (40) we are told of a Seṭṭhi who had established six almonaries, two within the town and four at each gate. The preamble to the same mentions the pious benefactions of Anathapiṇḍada and these included the establishment of almonaries, and supply of food to the monks. Incidentally we hear of the practice of dedicating tanks on square paths and the non-realisation of loans advanced to traders or house-holders in distress.

The existence of the dancer, singer, dress-maker, shampooer, acrobat, actor, and the story-teller who formed a non-producing parasitical class point to the prosperity of the upper classes. It is further proved by the rich festivites, large fees paid to courtesans, the high price of rich wines and the stories of betting with big sums (see Bhūri-datta Jāt., 543.) The middle-class people were happy and often above the reach of want. They too lived a life of ease, indulged in charities, made gifts to the order, raised money by subscription for charity or for works of public benefit and joined in merriment and festivities.

Of course, the poor often suffered from the exactions of money-lenders or the raising of prices by cornering, as they do in all ages and at all times. Famines too occurred at intervals and added to the distress of all classes.

One thing however is noticeable e.g. the bitter struggle fot extistence was wanting in the country taken as a whole. This was due partly to the fact that the production in the country was ample and society did not rest content with the happiness of classes, but felt for its members in distress. Hospitality was regarded as the highest duty of householders. The Dharmasūtras repeatedly enjoin on the duty of feeding guests, infants, old and sick people, pregnant women, and even Sūdras, who came for food (Āpastamba says, he must be made to do work after eating; See Āpas. II. 4. 10 20). While such was the social duty of all householders, the king was regarded, as we shall see later on, the natural guardian of the widow, orphan or the indigent. Āpastamba calls upon kings to build a hall open to guests of the three castes aud to see that no Brahman suffered from hunger in his realm. (Āpastamba II. 10.4—12).

India was rich. Stories of her great wealth and prosperity reached the ears of foreigners and roused their greed, and this made them invade India. In the 5th Century B. C. the portion of the Punjab under the occupation of the Persians was regarded as the wealthiest province of their empire and yielded the vast tribute of 360 Talents of gold annually (£ 3,000,000).

CHAPTER X

GENERAL CHARACTER OF ECONOMIC EVOLUTION

From what has already been said, it would appear that the general economic condition of the country was one of great prosperity. The mass of the people was well off, knowing little of scarcity and as yet there was nothing of that bitter struggle for existence which characterised the subsequent stages of development.

This many-sided prosperity of the country was due to various causes which tended to give a wider scope to the activity of the various classes of the population. Agriculture flourished, under the fostering care of the princes, new plants were cultivated, and the quantity of production was increased owing to the extension of the Aryan population over the fertile regions of eastern and south-eastern India.

The introduction of silk and cotton cultivation paved the way for the development of the textile industry. The opening of direct trade-relations with western Asia gave a further impetus to the growth of industry by opening up new markets for the productions of Indian handicraft. The growth of industry in its turn gave the industrial sections a better opportunity and added to their prosperity.

Industry and foreign trade.

Their guild-organisation became more and more complete and with its help they improved their condition. Artisans and labourers were better off and they could earn fair wages, without being dependent on any other section of the population.

Side by side with these, other changes too took place. The main centres of activity of the industrial and commercial sections of the people were shifted from the villages to the towns which grew in prosperity. The landless and labouring poor, in addition to the rich, congregated into the towns, which became centres of distribution for the goods of various country parts, and this again gave an impetus, which tended to widen the scope of national activity.

Movement of population.

The revival of trade contributed to the wider circulation of metallic currency and added to the wealth of the country in general. All these causes added to the prosperity of the various sections of the populace. The masses became richer, and India became prosperous than ever. Her mariners exploited regions beyond the seas, came in touch with foreign nations and added to the country's wealth.

Town life or the new conditions were however distasteful to a conservative section, especially the Brahmins, who are asked not to frequent towns or the congregation of the many. They continued to prefer village life, and remained attached to agriculture and continued their abhorrence for trade or industrial life.

CHAPTER XI

THE STATE IN RELATION TO ECONOMIC LIFE

The socio-economic ideas of the period as also the ideas regulating the relation between the individuals and the state were gradually evolved out of those held in the Vedic period. The people expected protection and active help from the state. We have very little of theories in regard to these in Buddhist books, but, as stated already, the ideal king is represented in these as granting loans of corn to peasants, or settling them on royal land.

In regard to the relation subsisting between the king and his subject, a contractual obligation was supposed to subsist between them. The germs of this theory are found in the Brāhmaṇa literature, while in the Aggañña sutta we have an exposition of the theory of the origin of society in contract between the king-elect (Mahā-sammata) and the people. The theory is found well developed in the Śanti-parva, based on an older tradition relating to Manu and his election (Śānti ch. 67) by the people.

As regards taxes paid to the king, these were regarded as wages paid in lieu of his services. In regard to the sources of the king's revenue we have very little of details in the Buddhist books. But from the scanty information we find that these included—

(1) a share of the produce of fields, measured and exacted in the name of the king by the Droṇa-māpaka.

(2) duty on articles of merchandise (see pp. 213) on imports and on exports.

(3) excise duty on wines and liquors (chāṭikahāpaṇa) which the Grāma bhojakas exacted from the villagers.

(4) other taxes including those collected at the gates of the city (see Mahā-ummagga Jat.), or occasional gifts made to the king on the birth of a son. (See Suruci Jat.).

In the Jatakas we hear of no taxes on the artisans, but we have instances of villagers uniting to do service for the king (e.g. to help him in his hunting expedition.)

In the Dharmasūtras we have more details. According to these the taxes included—

(a) a share of the produce, which varied according to the various authorties (see Vaśiṣṭha I. ; Āpa—II. 10.). Vasiṣṭha says it was 1/6, but according to Gautama it varied from 1/10 to 1/6 of the produce (X. 24).

(b) a tax on cattle and gold amounting to $1/\frac{1}{60}$ of the stock (Gau. X. 25 see also Śanti parva 67).

(c) toll on merchandise, amounting to 1/20 of the value (Gau. X 26) together with 1/60 of roots, flower, meat and herbs).

(d) duty payable by owners of ships and carts.

(e) gifts of merchandise, once a month, by merchants for less price than in the market.

(f) In addition to these, the king was entitled to, all treasure-troves, lost articles, escheats on lapse of heirs, a share of the booty gained in war, and furthermore artisans had to work one the day in month for the king. (See Gau. X 31).

EXEMPTION FROM TAXATION :—Thus almost all producing sections were taxed, but some classes were exempt from taxes. Most of the exempted classes were now-productive and these included Śrotriyas, women of all castes, children before puberty, students and ascetics forbidden to hold property, diseased persons, Śūdra servants (See Vas. XIX. 23., Āpas. II. 10-10-17). To these Vaśiṣṭha adds those who live by exploiting the river, forest, or hills, artisans, Śrotriyas or those earning less than a Kārṣāpaṇa (Vasiṣṭha. Ch. XIX. 26 and 37).

Far from taxing them, the king, according to the evidence available, was bound to maintain the Śrotriyas, the weak, the aged, women without means, and lunatics (Vasiṣṭha, Ch. XIX. 35, Gau. X 9-12).

SOCIO-ECONOMIC IDEAS :—Economic theories proper do not seem to have been developed in those days, and all speculation ends in a fine idealism about a regulated social existence. We have nothing which can help us in showing whether the ancients knew, or cared to know the laws governing demand and supply or production and distribution. The conception of wealth was rather loose, anything enjoyable being regarded as wealth.

From the economic point of view, the functions of the head of the community were extensive. As stated above, he was not to confine himself to mere police duties or administration of justice, but had to do everything in his power to further the interest of the people. Society regarded the life of the people as sacred, and it was the duty of the state to find out means of subsistence for the people. Failing that, the king was to maintain those without means and to relieve distress. As in many other primitive communities, the state was more social than political, and the concept of state-duties, though not elaborate, approaches that of the modern socialist.

Another important point in this conception was the idea of social solidarity and its dependence on the mutual co-operation of the classes (See Āpas II. 2). The classes were assigned certain duties, and in the fixing of these relations, the social position of castes and sub-castes were taken into consideration. The caste theory, which had arisen in the Vedic period was becoming rigid. To see that these duties are carried out without restraint, certain castes were forbidden to encroach upon those of others; This seems to have been the reason which restrained

the Brahmin from directly engaging in agriculture, trade or usury. The idealism of the Dharmasūtras, whether real or imaginary is worthy of notice, and as we proceed, we find a further development of this permanence of relation between caste and craft in the Smṛtis. This marks an important phase in the evolution of the caste system, which must be looked upon as a federation on the basis of socio-economic duties and privileges. The different sections of the various castes and sub-castes were organised on guild lines, and from the point of veiw of their internal organisation, were democratic. Within the guild, there was a harmonious association of labour and capital and thus a struggle between the two diverse elements was avoided.

3. Society, though split up into castes and classes, was looked upon as an organic whole, and its salvation was supposed to depend upon the harmonious co-operation of the various sections. The idea of co-operation gave rise to or very nearly coincided with that of a just remuneration or price. This, though not so developed as in the Arthaśāstra, or in the later smṛtis, shows, how even in these days, society expected every section, to exact its proper share of profit and nothing more. Cornering or undue raising of prices came to be considered (Vasiṣṭha—II 41—50) as inimical to society and on the same principle the rates of interest were fixed. As the idea of a just price gained ground, the Vārdhūṣika came to be denounced, (Vasiṣṭha II. 40—42) since his exactions (see Āp. I. 18. 22.) were telling heavily on society. His food was regarded as impure.

While exploitation of others by capitalists came to the denounced, society attached great importance to the performance of duties, assigned to individuals and castes and such adherance to duties was regarded as some thing leading to heaven. The conservative sections especially the

Brahmins, regarded agriculture as a duty of land-owners. Lessees and those who neglected it, were fined, as well as the negligent labourers, who were flogged. Deviations from caste duties in the case of Brahmins was denounced and military profession, (in the case of Brahmins) usury, following of crafts, letting of houses, medical profession, were regarded as causing a loss of social position (see Āpastamba I. 6. 18. 16—22).

4. The concept of social duty, also called upon individual house-holders, not only to maintain their family but to help others in distress. A servant was also to help his master in distress. Ultimately there was the state, which came to the assistance of its indigent subjects by freeing them from taxes and maintaining them.

5. Mendicancy, beggary or uudue asceticism was regarded as a social evil, except in the case of men in the decline of their life. This appears from the trend of the conversation between Buddha and Ajātaśatru. In the Āpastamba Dharmasūtra, a mendicant in violation of the law has been denounced while Vaśiṣṭha denounces begging brahmins as thieves (Vas. ch. 2).

GENERAL TENDENCY TOWARDS STATE-INTERFERENCE IN ECONOMIC LIFE.

The economic arrangements of the period as described above, do not show any great amount of state-inteference. As yet there was neither the monopolies, nor royal ownership in mines, nor do we find royal officers regulating prices and profits. Yet the germs of the later system as described in the Arthaśāstra can be easily detected in the Dharmasūtras or the Jātakas.

Thus in regard to revenue, the taxes on produce, the duty on articles of trade, and the excise on wine, exist in the Jātakas. Moreover in the same books we find the tolls

collected at the gates (see Mahaummagga Jat.). These exist in the Arthaśastra. The germs of the occasional taxes are found in the Jatakas. Thus the practice of paying a small sum to the king on the birth of an heir, is clearly the fore-runner of the Utsaṅga. Similarly in regard to the forced labour of artisans, we can see its early existence in the Dharmasūtra of Gautama.

In regard to mines and forests, Vasiṣṭha seems to regard these as res communes, which were enjoyable free. Prior to the rise of the Maurya state, the conquests of the Saisunagas and Nandas, had already converted some of these into royal domains. In the days of small states these belonged to noboby, but when these were conquered by the Magadha king, all intervening territories in addition to forests and other unclaimable natural sources passed to the dominion of the conqueror.

State regulation of prices and profits came as a natural sequel. In the Jātakas, we find the existence of the Aggha karaka, whe valued everything on behalf of the king. Gradually as cornering, began to tell heavily on the people, the latter looked upon the king to intervene on their behalf and what was once done in the interest of the king came to the done in the public interest. Similar causes, called for, and resulted in the regulation of weights and measures and later on, of the currency.

In regard to labour and wages, interference came with a view to check, the exorbitant demands of labouring people. The germs of a labour legistation are found in the Dharmasūtras, which lay down regulations for punishing servants in tillage who abandoned their work, or herdsmen who left their work and thereby caused loss to the employer. A relation between work and wages, also came to be thought out, as we find in the Santi parva ch 67 (see supplementary chapter. We find also, laws directed against

mendicancy or beggary. Kauṭilya's opposition to indiscriminate mendicancy marks an important chapter in the social history of India.

Thus we find that the policy of interference of the Maurya morarchy was not the creation of a single day or of a single brain, but was the logical sequel to the forces and factors operating in the previous period.

BOOK IV

SUPPLEMENTARY EVIDENCE FROM THE RĀMĀYANA AND THE MAHĀBHĀRATA

BOOK IV

CHAPTER I

I

SUPPLEMENTARY EVIDENCE FROM THE RĀMĀYANA AND THE MAHĀBHĀRATA

Before we pass on to a study of the economic condition of India attending on the rise of the centralised Maurya Empire, something ought to be said as to the picture of the economic life described in the two Epics—the Rāmāyaṇa and the Mahābharata.

Each of these two great works, throws a flood of light on the conditions of India in the past, but as is well known to most scholars, there is a great difficulty in utilising the materials furnished by them. The two great works were not the production of a particular period, but grew out of older nucleuii, handled and re-handled by subsequent composers. They thus took centuries to be reduced to their present form. More-over, though attributed, to single composers, each seems to have been composed piece-meal, re-touched and so re-handled, several times afterwards, as to leave the traces of subsequent handling.

Our difficulty therefore lies, in separating the various strata of composition, which are sure to bear the stamp of the age in which they were produced. The traditions about historical events may be reproduced intact by a subsequent writer, but whenever, some one tries to draw a picture of social life, it is sure to be influenced imperceptively by the ideas and conditions of the age in which the writer lives.

Such has been the case with the Ramayaṇa and the more so with the Mahabharata. Of the two again, the Rāmāyaṇa, though coloured by the poet's imagination gives us a picture of a more primitive period. In the case of the Mahabhārata, we get indeed a glimpse, of the period, to which the events are taken to belong, but the general picture is occasionally so coloured by the additions and modifications of later ages that it is difficult to form an idea of the period, the events of which are professedly narrated.

As instances of such modifications, we many point out the mention of Dināras in the Mahābhārata, the political and social tendencies of the Anuśāsana parva, the mention of foreign tribes like the Śakas, Cīnas, Hūṇas or the Pahlavas, many of whom came to India not earlier than the first, second, third or the fourth Centuries A. D., both in the Mahābhārata and in the Rāmāyaṇa (Bāla. cb. 50-51). Other instances of comparately late additions also occur.

Yet, a careful examination shows that in spite of this modification of some chapters, the main bulk of the two Epics gives us pictures of social and political life, far removed from those, which we get in later compositions. The picture of social and political life in the Rāmāyaṇa is essentially primitive. The whole country to the East and the South was more or less covered with forest. There was a vast forest region to the east of Mithilā. The whole of the Vindhya region, and Daṇḍakā, were covered with jungles, inhabited by wild animals and savage primitive men. Such was also the character of the Kiṣkindhyā region and we hear very little of settled kingdoms or of cities.

The Mahābhārata account, though more coloured by the poet's imagination, gives us also the description of a comparitively earlier stage of development. It was certainly not

so primitive as that described in the Rāmāyaṇa, yet it carries us to an age anterior to that which saw the great movement for the establishment of centralised monarchy in Northern India culminating in the Empire of the Nandas and later on of the Mauryas. We are carried back to the age of the small city states, the tribal democracies, and the republican Gaṇas, and Saṇghas. The picture of life, though often coloured by poetic imagination, is not far removed from that which we have in some of the early Brāhmanical Sūtras or that described in the Jātakas. To speak generally, the age of the Mahābhārata, as also of the Rāmāyaṇa, was one, so far as economic life was concerned which coincides, with that characterised by—

(1) the rise of town-life.

(2) the growth of crafts and the organisation of crafts-men into guilds.

(3) the development of trade both internal and foreign (though the data in regard to the latter is very meagre).

Difficult as the problem of utilising the evidences of the two Epics is, we think we will not be very far removed from truth, if we utilise the data supplied by the two books, as supplementary evidences to the support of the picture of the economic life in the second period.

We have summed up the chief characteristics of the two Epics, so far as economic life is concerned, but before we enter into an examination of the above characteristics we must say something about the various regions of India in regard to their economic products. Both the books give us some data is regard to the productions of the various localities, in connection with gifts presented to sovereign kings by their feudatories, on the occasion of their performance of the Aśvamedha and the Rājasūya.

The Rāmāyaṇa evidence in regard to this is rather meagre, but inspite of it we find the following information.

II. LOCALITIES AND THEIR PRODUCTS.

1. The countries of Kāmvoja, Vāhlika and Vanāyu were famous for horses. (Bāla, ch. VI). In one place we are told that the Kekaya king made a gift of 10000 horses (Uttara ch. 113) of Kāmvoja.

2. The elephants of the Vindhya region were known for their size and strength (Bāla. ch VI).

3. In the Ayodhya Kaṇḍa (ch. 82) we are told of the gift of jewels (ratnāni) made by the Sāmudras (sea going merchants) of Kautya, Aparānta and possibly of the Kerala country (kevala ?) in addition to that made by merchants of Udīcya, Pratīcya and Dākṣināṭya.

4. Various other commodities, are mentioned but the localities are not specified. Thus, in many places, gems and pearls are mentioned. The description of courts and palaces, show the large use of gold and silver. We hear of bows and shafts of gold, golden coats of mail (Ayo, XL) scimiters of gold (Ayodhyā-ch. XLIV), not to speak of vessels, plates or seats of gold, used in bedecking palaces. In regard to gold, the epithet Śatakumbha-maya is used in many places. The various chapters show moreover, the use of bangles, (Araṇya. ch LII), pendants ornaments, and garments of gold. The use of bell-metallic vessels is mentioned in more than one place.

Of other products, we have repeated mention of silken cloth. The queens of Kośala are described as wearing silk garment and Sitā in Rāvaṇa's house is spoken of as wearing silk. Kambalas are mentioned in many places (blankets). Thus the Bāla Kaṇḍa (ch. 74) speaks of Janaka's gift of Kambala, Kṣauma ambara and carpets. Yudhājit is also described as making a present of Kambalas and cloth

with designs (citra-vastra ; Uttara. ch. 114). In addition, we have mention of woolen stuff (Bāla ch. 73., Kiṣ. 50) cotton and linen garments.

In the Mahabharata, we have more details as regards these. Not to speak of scattered references to local products, we have in the Sabhā, Rājasūya, and Aśvamedha chapters, a large variety of the goods brought to Yudhisṭhira and these throw light on the various regions of production. It will be an interesting study to compare these local products mentioned in the Mahābharata, with those of the Arthaśāstra or of later works. Such a comparision will show, that the Epic poets did not solely rely on their imagination to furnish details.

As to the various products and the locatities of their production, we may refer our readers, to the following chapters of the Mahabhārata e.g. Ādiparva—chapters 199 221 ; Sabhā Parva—chapters 28, 30, 31, 49, 51. The first two, enumerate the gifts of Kṛṣṇa, to the Pāṇḍavas while in the other chapters, we have a list of the gifts and presents made by the tributary princes to Yudhisṭhira on the occasion of his Rājasūya. In the list of the feudatories, who have mention of princes and chiefs hailing from Mānasa-sarovara, from the extreme hill regions, Meru and Mandara, from the East, West and from the extreme South. The tributaries include men of fabulous description e.g. men with one eye, one foot, with long ears, with horns on their head, and all these remind us of the tales of Megasthenes or those embodied in the later Paurāṇika accounts. The gifts include gems, pearls, gold and silver, varieties of cloth, carpets, precious stones, elephants, cows, horses camels, weapons of steel, slaves, slave girls and various other things. Among those who make the presents were kings of the Pāṇḍya country, Śakas and Cinas, and according to our present ideas they are but later additions. The

most important of these products are arranged accroding to the locality of production.

Elephants	...	Eastern countries, various localities of west and south.
Horses of the best quality.		Kamboja, Gandhara Valhika Prāgjyotiṣapura.
Cattle, kine, donkey	...	Mathurā, the country of the Vāṭadhānas.
Camels	...	The western regions.
Blankets	...	Kāmboja.
Woolen blankets including those made of the hair of mouse, and cat (vailān and Varṣadamśān.), embroidered cloth and cloth of gold (Jātarūpa pariṣkṛtān)	...	Kamboja.
Other varieties of blankets, coverlets, deerskins, etc.	...	Vālhika and Cīna.
Cotton cloth	...	Aparanta, Eastern countries, Malaya
Silk	...	Valhika, Cīna, Eastern regions.
Weapons of steel	...	Prāgjyotiṣa, Aparānta and the Eastern regions.
Sandal wood & aloes	...	Malaya mountain regions ; also the sea-coast regions.
Pearls	...	Paṇḍyas and the country of mleccha princes on the sea side.
Rice and cereals	...	Indus delta.

These are the localities, and it is curious to note that when we come to the Arthaśāstra, descriptions in the latter work very nearly tallies with this account. In regard

to the precious metals, we find no clue to the regions producing gold, but the epithet Jamvunada is applied to it (Vana. Ch. 243, Śanti, 39.) which is also found in the Arthaśastra.

In adition to these, we have mention of various other products. Thus we find mention of red silken cloth (Adi. 221), cotton cloth, linen garments (Adi. ch. 199), chariots of various description, weapons, swords, arrows, javelins, armours leather goods, including gloves made of the skin of the big golden lizzard, works of ivory, ornaments and various other articles of use, not to mention those of every day necessity.

III. AGRICULTURE: FAMINES.

As regards agriculture, there is nothing special to mention, nor do we have any description of village or agricultural life. In all descriptions of cities and countries, we find them spoken of as abounding in corn. Villages are often described as having fields on their skirts. The Ramayaṇa mentions the Mahāgrāmas of the Puṇḍras and of the Magadhas.

Famines, owing to want of rain, caused suffering on the part of the people. We have two accounts of famines. One in the Ramayaṇa, in the kingdom of Romapāda and that described in the Mahabharata, of the consequences of which a harrowing account is given in the Śantiparva (ch. 141).

IV. HOME AND FOREIGN TRADE; SEA VOYAGES.

As regards trade, we have but little details. In connection with the description of cities, we find mention of merchants. and also streets lined with shops containing merchandise. (This we find, in the description of Ayodhya

Bala V ; again in the Sundara kaṇḍa, we have a description of another city ; in Uttara. 83, and this is described as containing merchants from all countries.) In the internal trade, river traffic was largely used and there was an abundance of river craft. This would indeed appear from the description of the Ayodhyā kāṇḍa, where the Caṇḍāla king Guhaka commands his Kaivartas to have 500 vessels in readiness, as if to resist the passage of an enemy. Occasional references to the sea are met, but nothing more is known. In one place of the Ayodhyā kāṇḍa (ch. 82) merchants (Sāmudras) of Aparānta and Kerala are evidently referred to.

In the Mahābharata too, details are lacking. In the Sabha parva, on the construction of Indraprastha, we hear of merchants coming to settle in the new city. In many places the use of river craft is found, but details are lacking. In one place the Pāṇḍavas are said to be using a vessel (described as Yantrayukta and Patākinī). The Sabha parva, repeatedly speaks of merchants and occasionally we hear of merchants from foreign countries beyond the sea.

V. INDIAN AND EXTRA-INDIAN—GEOGRAPICAL KNOWLEDGE.

On this head some more information however is furnished by those chapters of the Kiṣkindhyā kāṇḍa, where Sugrīva directs his monkey chiefs to go out in search for the wife of his ally Rāma. These chapters, we know not whether old or later, show that they had, not to speak of trans-marine intercourse, a knowledge of Indian and extra-Indian geography, which was not in-considerable. The accounts, though full of fables about strange men and creatures, are interesting as furnishing remarkable details. Thus in the East we are not only told of the Mahāgrāmas of Magadha and of the Puṇḍras but we are told of the land of the Koṣakāras and Silverproducers (Rajatakāra), of the islands peopled by

cannibal Kiratas, Yavadvipa with its seven kingdoms, and of the islands of gold and silver. Beyond this, was the ocean of red waters, and another ocean with the Sudarśana Island in it. In the south, the monkey chiefs are directed to go to the land of the Andhras, Paṇḍyas, Colas, and Keralas, in addition to various countries of fabulous description. Similarly in the west we find various countries enumerated. The account moreover is supposed to contain a reference to the Polar regions which for six months remain dark and where no sun rises. We know not whether these are later additions, but the account is of great interest showing the extent of the geographical knowledge of the ancients (See N. C. Das. Ancient Geography of Asia).

VI. DEVELOPMENT OF TOWN LIFE. DESCRIPTIONS.

From the descriptions of both the Epics, town life seems to have been well developed. In the Ramayaṇa, towns (Nagaras) are mentioned and contrasted with villages. Only a few however have been described, e.g. the town of Ayodhyā, the city of Janaka, and the city of Rāma's adversery Rāvaṇa. Similarly, in the Mahābhārata, we have descriptions of Hastināpura, Indraprastha, Vāraṇāvata, the capital of the Pāñcālas and incidental descriptions of some more.

A description of Ayodhyā is furnished by the Bālakaṇḍa (ch. V,) and further details are furnished on the occasion of the contemplated Yauvarājya of Rāma, or on subsequent events. The city is described, as being surrounded by wide ditches and high walls, in which there existed gates and towers (Aṭṭālaka) bearing pennons, carrying weapons of offence and defence and garrisoned by soldiers of all arms(kapāṭa-toraṇavatī and uccāṭṭāladvajavatī). Within the city, lived men of various castes and professions

and merchants from different countries. There were stocks of all kinds of merchandise or articles of every day necessity. In the Uttara Kāṇḍa (ch. 83,) another town is described as containing streets lined with shops of merchants. It was also inhabited by merchants of different countries.

Similar descriptions of Laṅkā are furnished by various chapters (see Araṇya ch. 50 ; Laṅka 75 ; Araṇya 55 ; Sundara 2 and 11) which dwell upon the beauty and grandeur of the Demon King's capital, but these are more or less the creation of poetic fancy and it is needless to mention the details.

The Mahabharata, similarly furnishes us with descriptions of towns, but these are not so detailed as in the Ramayaṇa. Thus, in chapter 207 of the Ādi, we have the story of the building of Indraprastha, and we find descriptions of fortifications, and defensive arrangements. In regard to other details, we are told of the settlement of merchants, craftsmen and skilled artisans (sarvaśilpavidaḥ). The cities of Viraṭa and Drupada were similarly fortified and organised.

From all these descriptions, towns seem to have been the centres not only of cultured life, but also for the distribution of goods and commodities within the states of those days which may be likened to the small city states which existed elsewhere in the world. Some of the industries came to be located in the cities, as will be seen in the case of Ayodhya. Villages remained as before, productive areas. The ordinary agriculturists, and the mass of inhabitants dwelt there. Brahmins who were learned or were in the service of the king lived in the cities, though the poorer sections liked village-life. Recluses lived in secluded settlements or in hermitages though this exposed them to attacks of savages, as is well known to all readers of the Ramayaṇa. As in the case of the Jātakas,

caste-villages existed in the days of the Mahābharata, and we have references to Brahmin villages (Anuśāsana 68) Kṣatriya villages or Śūdra villages.

VII. CRAFTS AND THEIR DEVELOPMENT. GUILDS.

In regard to the various crafts, we find innumerable references in the Ramayaṇa. They are mentioned in more than one place and we find lists of the crafts-people in Bāla-kaṇḍa (ch. XIII), e.g., on the eve of Daśaratha's Yagña, in Ayodhya kaṇḍa (ch.XXCIII), in connection with Bharata's expedition to bring Rāma, when the craftsmen join him, (also ch. 80 of Ayodhyā) and in various other scattered places. The first mentions craftsmen (karmāntikān), skilled artisans (śilpinaḥ, silpakāra Vardhakis and khanakas) ; ch. 79 of the Ayodhyā speaks of the śilpi-varga while ch. 80 gives us a long list of craftsmen. A fuller list of the higher and the lower crafts is supplied by the 83rd chapter of the Ayodhyā kaṇḍa.

From all these we prepare a full list of the higher and lower crafts.

Sūtra-karma visāradāḥ	Vardhaki
Khaṇaka.	Tantraka.
Karmāntika.	Sūpakāra.
Surākāra.	Vṛkṣakāra.
Vamsakāra.	Carmakāra.
Maṇikāra.	Dantakāra.
Rajaka.	Snāpaka.
Kumbhakāra.	Sudhākāra.
Auṣṇodaka.	Vaidya.
Sutrakarmāvigña.	Gandhopajīvī.
Dhūpika.	Śastropajīvī.
Suvarṇakāra.	Kaivartaka.

Kambalakāra.
Mayūraka.
Krākacika.
Vedhaka.
Rocaka.
Tantubāya.
Sailūṣa.
Naṭa.
Talāvacāra.
Mārgasodhaka.
Sauṇḍika.
Rakṣaka.

The Mahābhārata refers in many places to various crafts. No complete list of the crafts is furnished by any single chapter, but from random references we may make up a list. Thus the Ādi. Parva. (ch. 207). describing Yudhiṣthira's building of Indraprastha refers to the various skilled artisans. Some chapters of the Anuśāsana parva mention various craftsmen in connection with mixed castes.

Weavers—including makers of blankets, silk manufacturers, makers of woollen cloth and carpets.
Goldsmiths :—workers in base-metal including Karmāras.
Carpenters.
Various grades of masons.
Housebuilders.
Basket-makers.
Tanners.
Makers of weapons, mails, bows, arrows,
Workers in ivory.
Wine makers.
Potters.
Various grades of cooks.
Soup makers.
Innumerable grades of menials and servants.
Elephant tamers.
Grooms.
Charioteers.
Sellers of garlands.
Washermen.
Barbers.
Bath-servants.
Toilet-makers.
(male and female)

Whether these crafts were organised in guilds, it is difficult to determine, but their leaders are mentioned prominently in various places of the Rāmāyaṇa showing their importance. On all important occasions the

Naigamas (Ayo ch. 14 also 89) are mentioned, as well as the Gaṅa-ballavāḥ (Ayo ch. 81). In more than one place, we find the mention of the Śreṇi-mukhyāḥ (Ayodhyā—ch. 26), and in the Ayodhyā Kāṇḍa, we find the Kājakartaraḥ accompanied by the guilds (Ch. 79). Again on the occasion of Rama's entry into Ayodhyā, he is welcomed by the Sreṇi-mukhyāḥ (Laṅkā Ch. 129).

In the Mahābharata, we find similar references to the Śreṇis and their organised character. In the Ādi and Śanti-parva chapters, we have innumerable references to Śreṇis, to paurasaṅghatas, and consolidation through Śreṇi-mukhyopajāpa. In many of the chapters dealing with the conquest of Yudhiṣṭhira and of Duryodhana (on his Vaisnava-yagna), not only have we mention of Śreṇis, paying tribute on being conquered, but we have references to their leaders attending the ceremonies. Duryodhana after his defeat at the hand of the Gandharvas, is abashed to meet the Śreṇi-mukhyas (see Vana—Ch. 248). We find men discarding their Śreṇivandha, condemned.. The Śreṇis, moreover, are described as bearing arms and in one chapter of the M. V. Āśrama-vāsika (ch. 7) we have mention of the troops of the Śreṇis (Śreṇi-vala).

Detailed information is however lacking, not because the Epic poets were merely writing from their imagination, but because these were so common that details were regarded as unnecessary.

VIII. GENERAL WEALTH OF THE COMMUNITY.

The general wealth of the community is apparent from the gorgeous descriptions of towns, royal palaces, or the account of gifts to Brahmins and sages by kings. India in the days of Rāmāyaṇa, had a rather small population, and the natural wealth of the country was very great, as would

appear from the description. Even ordinary people possessed large herds of cows, while their rich fields supplied their wants.

The Ramayaṇa is full of such accounts of gifts. Gold seems to have been plentiful, and we hear of gifts of Niṣka (Ayodhyā—72), Hiraṇya and Suvarṇa (Bala. 78, Ayo. 76, Uttara 77, Laṅka 130). In more than one place, we find mention of articles of use made of gold, and the word Jambunada is used more often to denote gold (also Śatakumbha and Jatarupa).

The same is also true of the Mahābharata, and the truth appears from the description of the Sabha-parva (see Sabha Ch. 9, 11, 3, 4, 47, 49). The various chapters mention Hiraṇyas and Suvarṇas, and we have references to pots, vessels, and armours of gold, not to speak of royal thrones (see Vana 253, Śanti, 02). We have mention of the Niṣkas in the Sabha-parva (see Ch. 53). Judhisṭhira is described as giving away Niṣkas to Snatakas, and in another place we are told that he gave away crores of Niṣkas to Brahmins after his Aśavamedha.

The chapters of the Anuśāsana parva repeatedly extol gifts and in these we find an idea of the wealth of the country (see Anu, Ch. 61—69, 71—80). The general wealth of the community is apparent from the descriptions of Samājas and feasts, rich dishes, wine drinking (Madhu and maireya. Kis—30) and the use of garlands and ornaments by all classes.

IX. OCCUPATIONS; AGRICULTURE; LOWER ARTS.

Agriculture was not looked down upon. We find a Brahmin Trijata, ploughing—with plough and spade, and he receives gifts from Rāma. Even Janaka is described as being engaged in ploughing.

The tendency of Brahmins to look down upon these lower occupations is found in some of the chapters of the Mahabharata. They confined themselves to Vedic studies, and allied persuits. Yet deviations were numerous. The Mahabharata contains at least three instances of Brahmins taking up the military profession (Droṇa, Kṛpa and Asvatthama). We have moreover the story of a Brahmin hunter Gautama.

As a rule such deviations were condemned. Thus Dhṛṣṭadyumna excused himself for killing Droṇa a Brahmin since he was not a Brahmin by occupation. In the Śanti-parva (ch. 77), Yudhiṣṭhira is asked by Bhisma, not to grant these Brahmins the immunities attached to that caste but they are to be placed on the footing of men of the caste, whose professions they followed. In the Anuśasana-parva we have not only an enumeration of mixed castes (48) but find an attempt to fix a relation between caste and craft as we find in Manu and other Smṛtis.

CHAPTER II

I. CONCEPT OF ROYAL DUTY; ENCOURAGEMENT TO AGRICULTURE AND ARTS.

We pass on next to a discussion of the popular ideas, as regards the duty of kings in relation to the material prospects of their subjects. In regard to this, the general evidence of the Epics, goes to confirm the view, that as in the vedic period, the kings and rulers of the period, thought it their duty to do every thing for the encouragement of agriculture, arts and industries. It was one of the most important duties, attaching to the royal office. The idea of Pālana which we find in the two Epics is in itself a peculiar conception of the Indian thinkers. The functions of the state were conceived as being more social and economic than political. The fruition of the Trivarga depended on the state. Every man desired to realise his Dharma, Artha and Kāma, which comprised, all the natural desires and wants, which underlie all human efforts. It was the duty of the state and of the king, to help subjects of all classes, castes and sections, partly by the chastisement of wrong-doing and the grant of even-handed justice, and partly by granting direct encouragement to the efforts of classes.

Furthermore, as the prosperity of the king depended on the prosperity his subjects, his own self interest made him alive, to the necessity of paying the greatest possible attention to their material welfare.

Consequently, in both the Epics we find that the greatest attention was paid to the various productive industries, and the classes who were engaged in production.

II. VĀRTTĀ LAUDED :—The science of Vartta which, concerned itself with the various branches of production, as understood in these days, was given a high place. Far from confining their attention to the sacred lore, or works on kingcraft, the rulers of those days not only attached an importance to it, but took care to study it thoroughly. As in the Mahabharata, so in the Ramayana, a high place is assigned to Vaṛtta. Thus, in the Balakāṇḍa we find the king studying Vartta along with Ānvīkṣakī, while in the Ayodhya kaṇḍa (ch. 103) Rama impressing upon Bharata the duty of protecting agriculturists and traders, describes Vartta as the source of life.

In the Mahabharata also, we find the importance of Vartta more than emphasised. Thus in Santi ch. 59, we find Vartta standing side by side with Trayī and Ānvīkṣakī (59—33). Its importance is further described in ch. 89 (7th sl). The author of the 68th chapter goes further than this and expressly says that "Vartta is the basis or root of this universe" (Varttamūlohyayam lokaḥ 68—35). In the 89th. chapter, agriculture, cattle-rearing and trade are described as the source of the life of this world (Kṛṣi-go-rakṣavaṇijyam lokanamiha jīvanam). In the Vanaparva, the same teaching comes from Hanūman who tells Bhīma, that Vartta upholds the universe (Varttaya dharyate sarvam dharmairetairdvijātibhiḥ) and that of the great branches of knowledge, Vartta is one. (Vana. Ch. 57—sl. 30—31). It is needless to enumerate passages extolling Vartta, but those already quoted, go to show its importance in the eyes of kings and people.

III. THE IDEAL OF A PATERNAL GOVERNMENT.

Not only was Vartta given a high place, and studied by kings and people, but the princes thought it

their bounden duty to encourage the various branches of Vartta and to help the classes engaged in these (e.g. agriculture, cattle-rearing, trade and the crafts). Both in the Rāmāyaṇa and the Mahabharata, we find sages and law-givers emphasising upon kings this duty on innumerable occasions. In the Ramayaṇa, Rama asks Bharata whether he was paying attention to the prosperity of the classes engaged in agriculture, commerce or cattle-rearing. In the Mahabharata, such passages are common and occur in almost all chapters, dealing with instructions as to royal duty. Thus, Narada draws attention to the necessity of properly protecting the people and asks Judhisṭhira whether the agriculturists were happy as well as the other sections of the industrial population (Sabha Ch V 76 to 84); whether the reservoirs contained water, whether seeds and other things were supplied to them, whether loans were granted, and whether the 'five' watched over the village? Hanū-mān gives Bhima the same advice. The innumerable chapters of the Santi-parva all concur in emphasising on kings, this active duty of protection (see 56, 87, 89). The Maha bharata thinkers, are unanimous in imparting to the head of the state, not only the duty of protection and justice, but the active duty of ensuring the continuance of life and finding out the means of sustenance for all classes of the people. Sacerdotalism emphasised upon the the moral and spiritual relation subsisting between the king and the people. The king was to receive the fourth part of the virtues and merits of the people. Similarly if he failed to protect, if his people suffered from tyranny oppression or poverty, he incurred sin. Again, if he failed to carry out the contractual duty attaching to his office he was looked down upon as a thief or as the Mahabharata thinkers call it, a "Valiṣaḍbhagataskara" who suffered in this world and in that beyond. (See Santi ch. 90—91).

It is impossible to quote all these passages, which are attributed to sages like Utathya, Bāmadeva, and some others, who propounded the details of such a theory but the same view is again described in detail in the 132nd. chapter of the Śantiparva. Everything thus depended on the proper discharge of royal duties. The king created the age, good and evil depended on him. If he did his duties he was worshipped as a god if not denounced as a devil.

In lieu of these services, the king received taxes which were regarded as his wages, an idea which is found in the Dharmasūtras. The 99th chapter of the Śānti expressely says that the sixth part which the king received from subjects was his remuneration for the protection granted to subjects (sa ṣadbhagamapi prāgña tasamevabhiguptaye).

Such was the conception of royal duties, and such were the relations supposed to subsist between the king and his subjects so far as their material existence was concerned. The Epic authors describe this relation, by means of innumerable similes. It is impossible to discuss all these in detail, but we may mention only one or two such. Thus, in one passage, we find the ideal king compared to the mother of his subjects and kings are called upon to perform the duties of a mother to her children. As a woman in pregnancy thinks only for the welfare of the child in the womb, so should the king think of the happiness of the people. (See ch. 56, Śānti 44—46; Bhabitavyam sadā rāgñā garbhiṇī-sahādharmiṇā etc.) In another passage we find the king spoken of as the mother of the people (mātā pitā gururgoptāvahṇirvaisravano yamaḥ | Sapta rāgño gunānetān Manurāha prajāpatiḥ ||).

In other places, we find the paternal concept of royalty described. The king was supposed to stand in relation to his subjects as a father. In more than one place we find the king likened to a father. (See ch. Śānti 57—33; Putrā iva piturgṛhe viṣaye yasya mānavaḥ Nirbhayā vicariṣyanti sa rāja

rajasattamah ; again in ch. 139—Pitahi raja rāṣtrasya prajanam yo'nukampanaḥ).

This paternal ideal gradually developed itself and the king became the natural guardian of the weak, the orphan, the widow, and it also devolved on him to maintain the the Śrotriya, or those who were without any means of livelihood. (See Ch. 86. No. 24) As we shall see later on, this paternal ideal developed in the days of Kauṭilya and the Maurya Empire and its noblest exponent was the Emperor Aśoka[1] himself.

To perform all these duties, the king was entitled to the customary revenues, which included a tax on agricultural and animal produce, on gold, duty on articles of import and export, fines, treasure-troves, lost articles, and various occasional revenues. The social contract theory (in ch. 68. Śantiparava) enumerates all these taxes.

In normal times, the king exacted these taxes without injury to the people. In the chapters of the Śanti-parva, Bhiṣma directs Yudhisṭhira, to imitate the leech or the bee, in collecting taxes, i.e., without detriment to taxpayers, and also that they might not feel. (See Ch. 71 Śanti,)

Extraordinary taxes were illegal but could be levied in extraordinary circumstances only, provided the people agreed to pay, when the king asked them to do so by showing causes for it.

IV. LABOUR AND WAGES :—Before we pass on, we may say something as to the condition of labour or the social ideals as to the relation between work and wages. In regard to labour, the Epic thinkers thought of fixing a relation between castes and crafts. Each of the castes not only had

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[1] See "Governmental ideals in Ancient India" by the author "Calcutta Review" 1922.

its attached duties but its members had certain specified means of livelihood. In course of time, these were subjected to revision, and the rise of mixed castes led to an elaboration and modification of the earlier relation between castes and crafts These are too well known to be repeated here.

But in one important passage we find an attempt to fix the proportion of profit between the capitalist and the labourer who worked under him. Thus, we are told that "a Vaisya or Śūdra servant tending a herd of 6 kine, was to get the milk of one ; for tending a herd of 100, he was to get one pair ; In trade, he was to get 1-7 of the profits ; in case of his being employed in the trade of horns or hoofs of animals he got 1-16 ; lastly he was to get 1-7 when he worked as a cultivator on other's land."

(Ṣaṇṇamekam piveddhenum śatacca mithunam haret ।
Labdhacca saptamam bhagam, tatha sṛṅge kalakhure ।
Sasyanam sarvavijanameṣa samvatsari bhṛtiḥ) ।

Śanti ch. 60—sl. 26 and 26.

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[1] In Kautilya, we find a similar proportion, alloted to workmen. But he prescribes only a general share of 10 percent to workmen and labourers, when no wages were specified (Kau P. 183).

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ADDITION

While the book was being printed, the exacavations at Mahenjodaro carried on by **Mr. R. D.** Banerjee brought to light the remains of an ancient civilization, which flourished about 3,000. B C. in the valley of the Sindh. The remains are being studied by scholars, and nothing definite can now be pronounced. Some are inclined to regard these remains as belonging to a race akin to the Sumerians. But whatever be the case, the new discovery throws light on the race-contact of the past, and shows the connection of Indian civilization with other contemporary cultures.





Hare Press, Calcutta

1925